

SONY

Video Editing Controller/Titler

RM-E1000T

Operation Manual

Before operating the unit, please read this manual thoroughly and retain it for future reference.

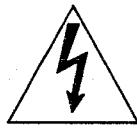
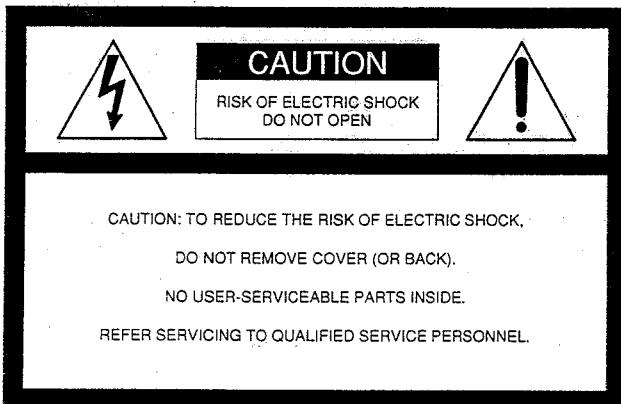
Owner's Record

The model and serial numbers are located at the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. RM-E1000T Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

FOR THE CUSTOMERS IN USA

Caution

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

FOR THE CUSTOMERS IN USA AND CANADA

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Notice for the customers in Canada

This apparatus complies with the Class B limits for radio noise emissions set out in Radio Interference Regulations.

NOTICE FOR CUSTOMERS IN THE UNITED KINGDOM

A moulded plug complying with BS1363 is fitted to this equipment for your safety and convenience.

Should the fuse in the plug supplied need to be replaced, a 5 AMP fuse approved by ASTA or BSI to BS1362, (i.e., marked with \oplus or \ominus mark) must be used.

If the plug supplied with this equipment has a detachable fuse cover, be sure to attach the fuse cover after you change the fuse. Never use the plug without the fuse cover. If you should lose the fuse cover, please contact your nearest Sony service station.

IMPORTANT

If the plug supplied is not suitable for the socket outlets in your home, it should be cut off and an appropriate plug fitted in accordance with the following instructions.

The wires in this mains lead are coloured in accordance with the following code:

Blue :Neutral
Brown :Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red. Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol \triangle or coloured green or green and yellow.

WARNING

To prevent shock hazard, do not insert the plug cut off from the mains lead into a socket outlet. This plug cannot be used and should be destroyed.

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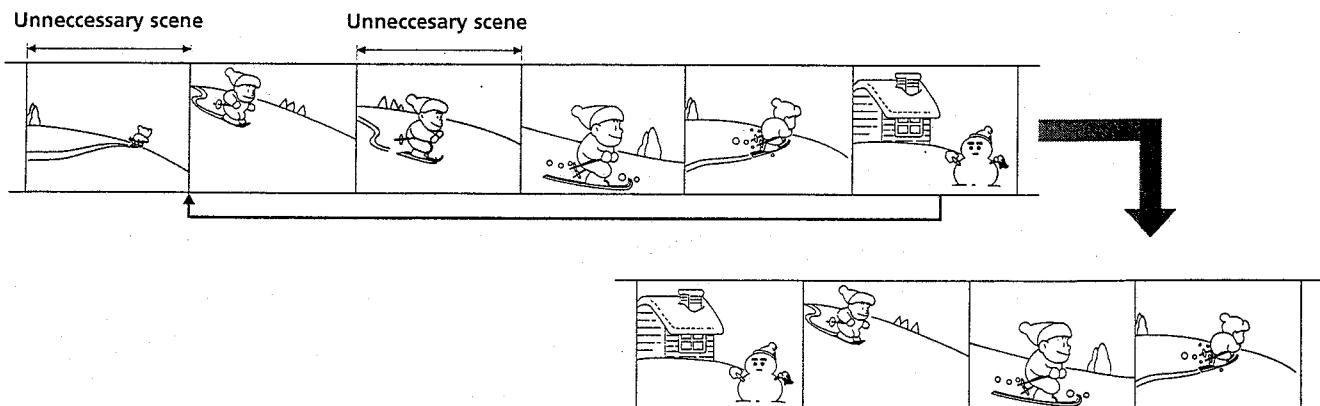
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What You Can Do with the Editing Controller/Titler

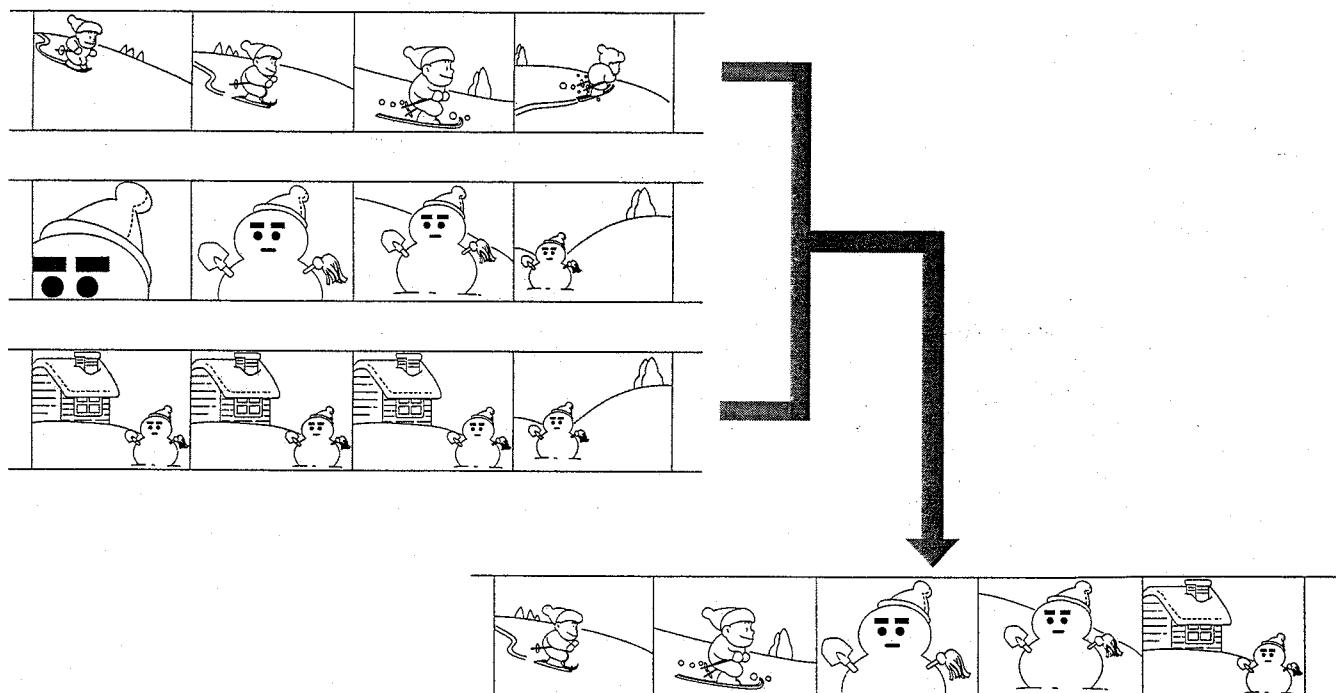
When you played back a tape, did you feel that it was too long and had some unnecessary scenes. Or, the tape would look more interesting if that scene come before this scene.

⇒ You can edit the tape like this (page 25).



When you want to make one story using scenes from more than one tape

⇒ This unit enables you to edit using up to 3 players.



The unit can generate special effects such as monotone and cinema (page 41) so that you can enjoy processing images. Furthermore, by connecting the Digital SEG (not supplied) to this unit, you can enjoy making various other effects.



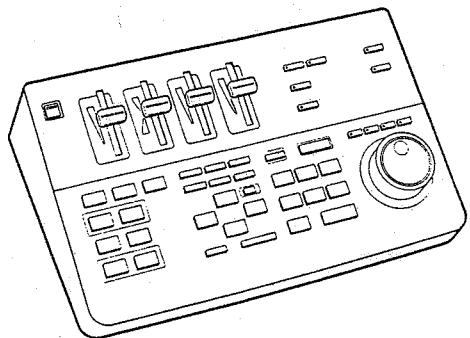
The keyboard allows you to create and superimpose the titles for video images (p. 53).



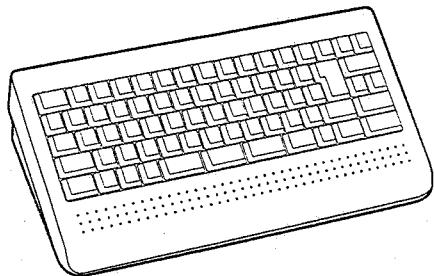
Supplied Accessories

Check that the following accessories are included.

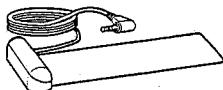
Control unit (1)



Keyboard (1)



IR repeater (1)



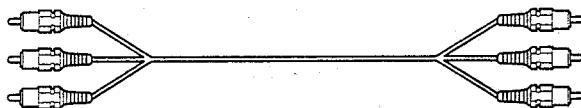
Lithium Battery (1)



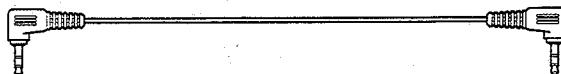
S video connecting cable (1)



A/V connecting cable (1)



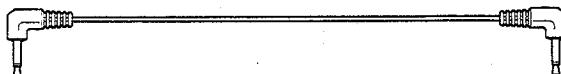
LANC /CONTROL L connecting cables (2)



CONTROL L cable adaptors (2)



CONTROL S/GPI connecting cables (2)



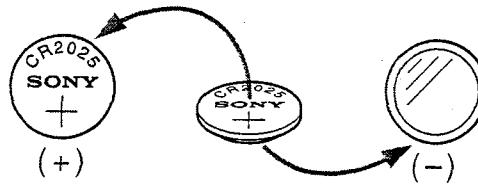
Power Cord (1)
Operation Manual (1)



Installing the Lithium Battery

Install the supplied lithium battery to keep the data of program settings, timing adjustment setting, and the function of a non-Sony recorder stored. Note that the lithium battery has a positive (+) and negative (-) terminal as illustrated.

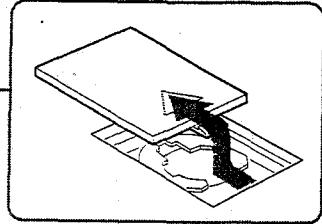
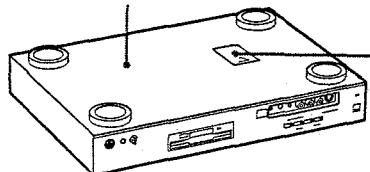
Be sure to install the lithium battery so that terminals on the battery match the terminals on the unit.



1

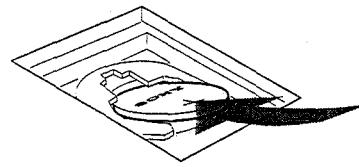
Open the lithium battery compartment lid at the bottom of the main unit.

Main unit (bottom)



2

Install the supplied lithium battery with + side facing out.

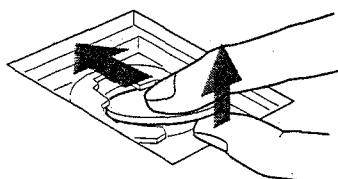


3

Close the lid.

To remove the battery

Press the side of the battery as shown in the illustration. To avoid a short-circuit, do not use a metallic object.



Lithium battery life

Approximately 1 year in normal operation. When the battery becomes weak, an error message (p.64) appears. When this happens, replace the battery with a Sony CR2025 lithium battery. Use of another battery may present a risk of fire or explosion.

Notes on lithium battery

- Wipe the battery with a dry cloth to assure a good contact.
- Do not hold the battery with metallic tweezers as they may cause a short-circuit.

WARNING

Battery may explode if mistreated. Do not recharge, disassemble or dispose of in fire.

Caution

Keep the lithium battery out of the reach of children. Should the battery be swallowed, consult a doctor immediately.

Usable Video Equipment

To use the video editing controller/titler, you need a player and recorder as specified below. For the descriptions on connecting the equipment, see from page 9.

Player

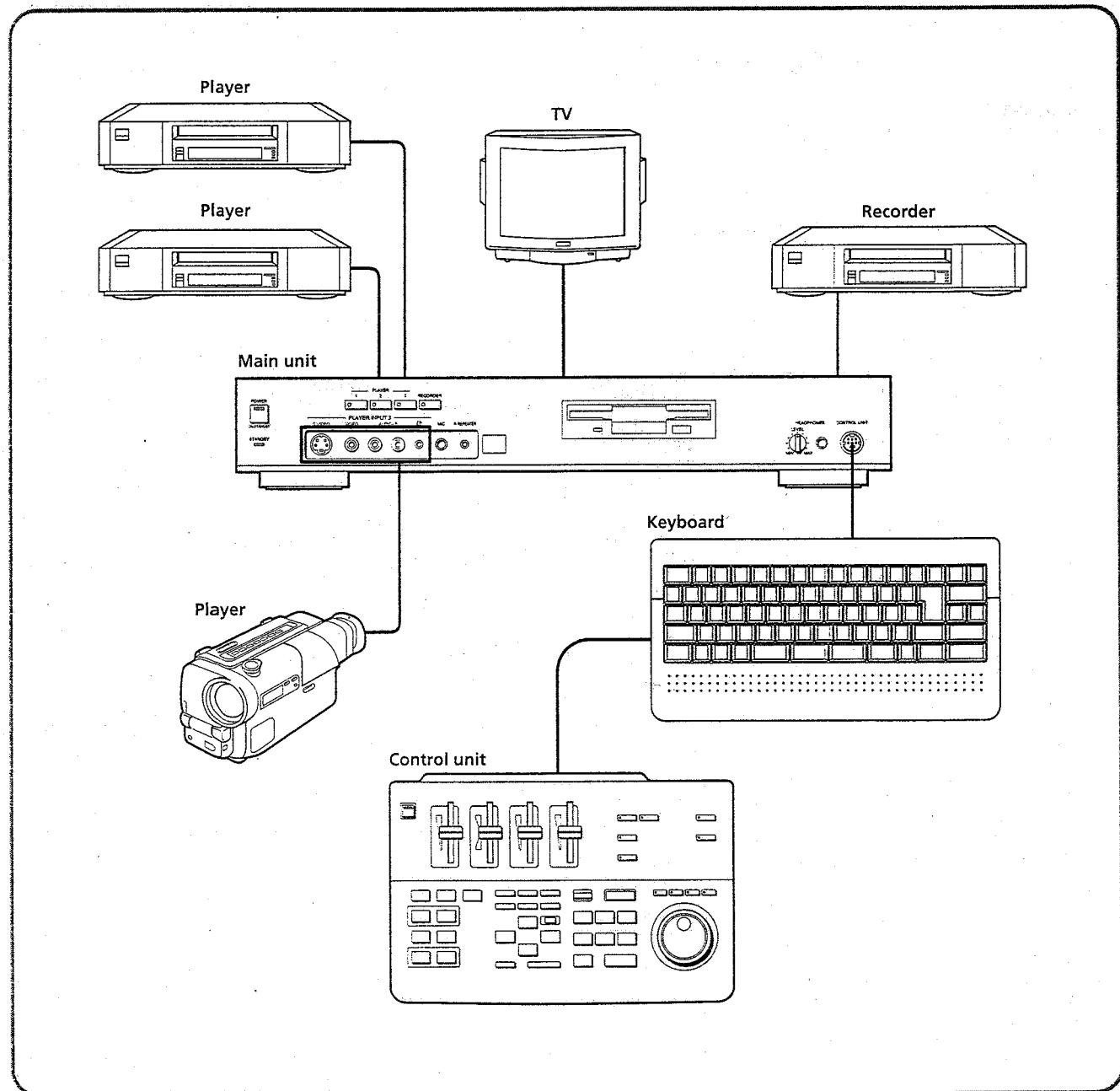
Video cassette player or video camera recorder that has:

- LANC  connector
- CONTROL L or REMOTE connector (Sony's)

Recorder

Video cassette recorder or video camera recorder that has:

- LANC  connector
- CONTROL L or REMOTE connector (Sony's)
- CONTROL S input connector (Sony's)
- Infrared remote control system (depending on models)



Note on LANC mark

 stands for Local Application Control Bus System. The  control jack is used for controlling the tape transport of the video equipment and peripherals connected to it. This jack has the same function as the connectors indicated as CONTROL L or REMOTE.

Usable Video Equipment

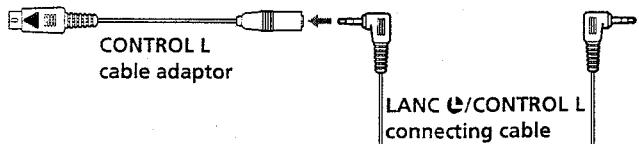
Notes on Connection

- Be sure to turn off the power of the equipment before connection.
- Be sure to use the equipment with its AC power adaptor connected to a wall outlet. If a battery pack is used and exhausted during editing, the editing will stop on the way.
- When both the player and the recorder have S video jacks, we recommend using the S video jacks to obtain a high quality picture.
- Connect the red plug to the right audio jack (red) and the white plug to the left audio jack (white).
- If you connect to both the S video and video input jacks, the S video signal is selected automatically. To view the video signal, disconnect the S video input jack.
- You may connect the player to the VIDEO INPUT jack and the recorder to the S VIDEO OUTPUT jack. Or, you may connect the player to the S VIDEO INPUT jack and the recorder to the VIDEO OUTPUT jack. The video signal input to the video edit controller/titler can be output through both the S VIDEO and VIDEO OUTPUT jacks.

- When you connect a monaural player to the AUDIO INPUT jacks, connect only the AUDIO-L plug (white). The sound is output from the left and right AUDIO OUTPUT jacks in monaural.
- When connecting a monaural player to the AUDIO OUTPUT jack, use a monaural audio cable.

Note on the supplied CONTROL L cable adaptors

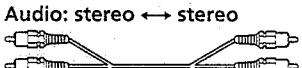
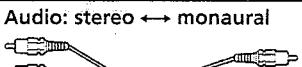
Use this adaptor when the CONTROL L, REMOTE or LANC  connector is the 5-pin () type.



Optional Connecting Cables

Use the supplied connecting cable to connect the player and recorder. When you need more cables, we recommend the following A/V connecting cables (not supplied).

A/V connecting cable (m/ft)

VMC-810S	1/3	Audio: stereo ↔ stereo
VMC-815S	1.5/5	
VMC-820S	2/7	
VMC-830S	3/10	Phono plug 3 ↔ 3
VMC-910MS	1/3	Audio: stereo ↔ monaural
VMC-915MS	1.5/5	
VMC-920MS	2/7	
VMC-930MS	3/10	Phono plug 3 ↔ 2

S connecting cable (m/ft)

YC-10V	1/3	
YC-15V	1.5/5	
YC-20V	2/7	
YC-30V	3/10	

Video connecting cable (m/ft)

VMC-10	1/3	
VMC-15	1.5/5	
VMC-20	2/7	Phono plug
VMC-30	3/10	Phono plug

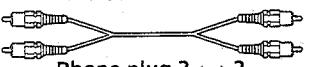
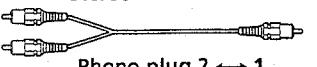
LANC connecting cable (m/ft)

VK-820	2/7	L-shaped stereo mini-miniplug
VK-810	2/7	5-pin DIN plug L-shaped stereo mini-miniplug

EDIT I/F connecting cable (m/ft)

SMF-540	2/7	8-pin mini DIN 8-pin mini DIN
---------	-----	-------------------------------

Audio connecting cable (m/ft)

RK-C310	1/3	stereo ↔ stereo
RK-C315	1.5/5	
RK-C320	2/7	
RK-C330	3/10	Phono plug 2 ↔ 2
RK-C210	1/5	stereo ↔ monaural
RK-C220	2/7	
RK-C230	3/10	Phono plug 2 ↔ 1

GPI connecting cable (m/ft)

RK-G60	1/3	
RK-G67	2/7	Miniplug Miniplug

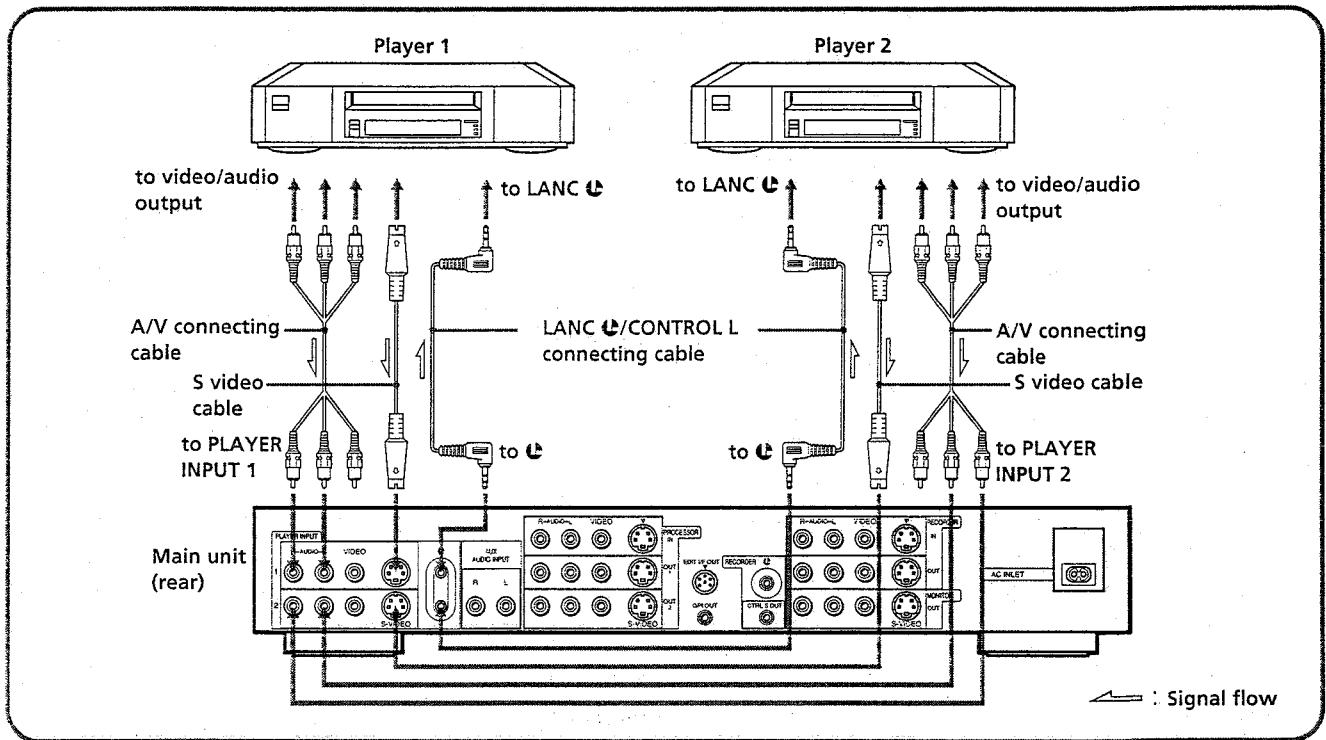
Other accessories Cable (m/ft)

Microphone F-PC30	2/7
Headphones MDR-34	2/7

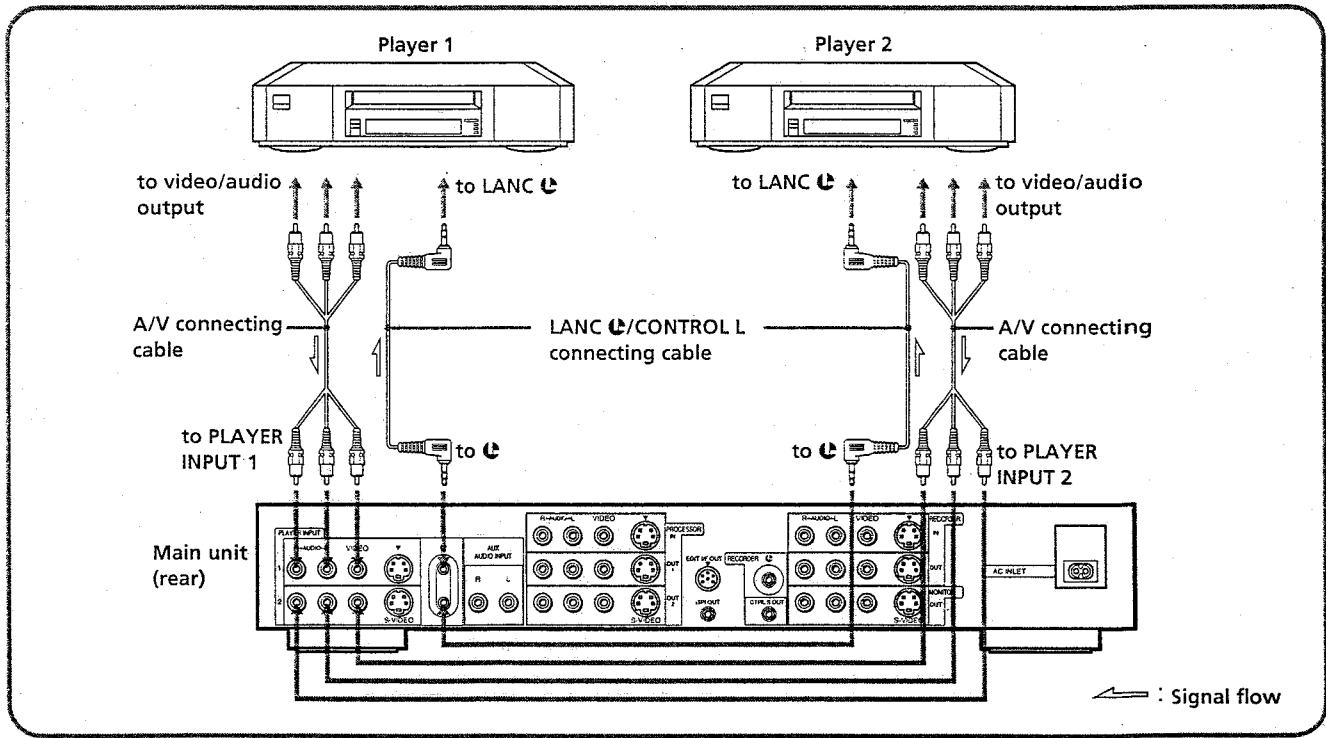
Connecting the Players

You can connect up to 3 players. Connect them to the PLAYER INPUT 1 and PLAYER INPUT 2 jacks on the rear and the PLAYER INPUT 3 on the front of the main unit.

Connecting a Player with an S Video Jack

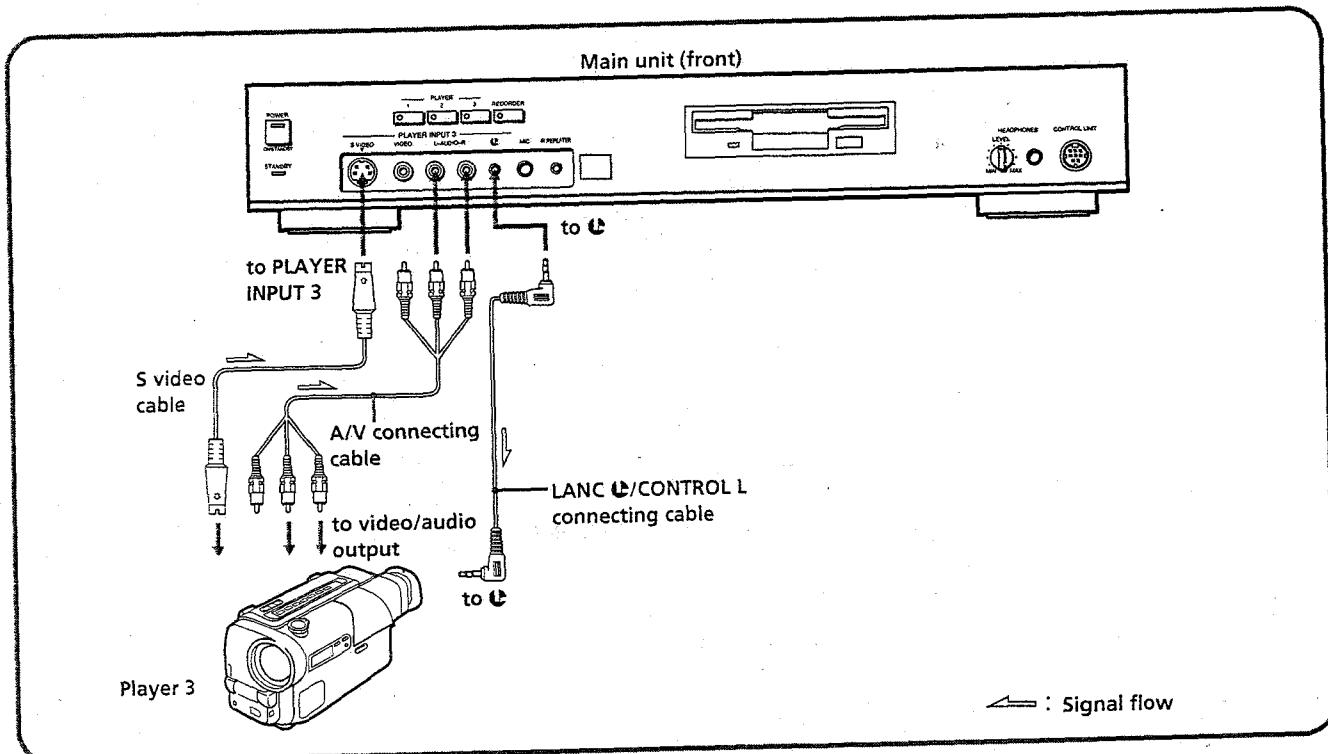


Connecting a Player without an S Video Jack

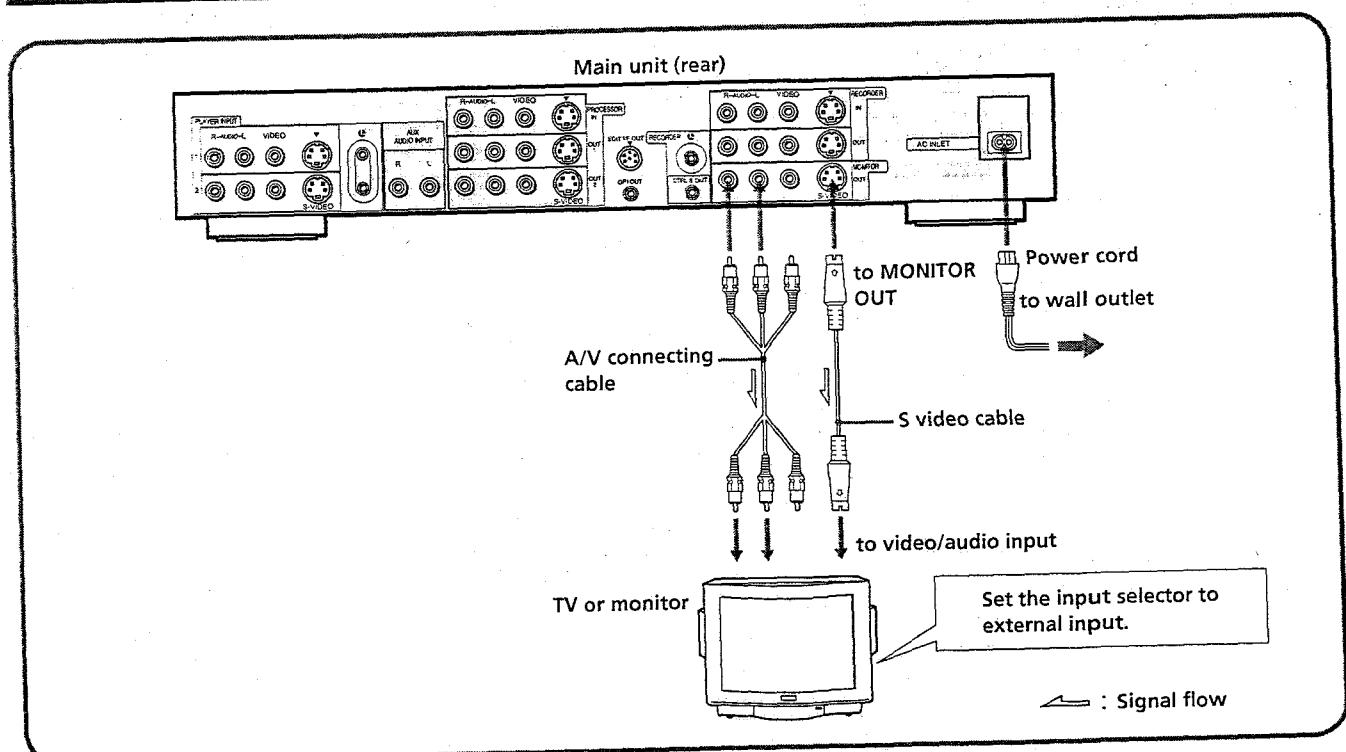


Connecting the Players

Connecting the Player to PLAYER INPUT 3 on the Front



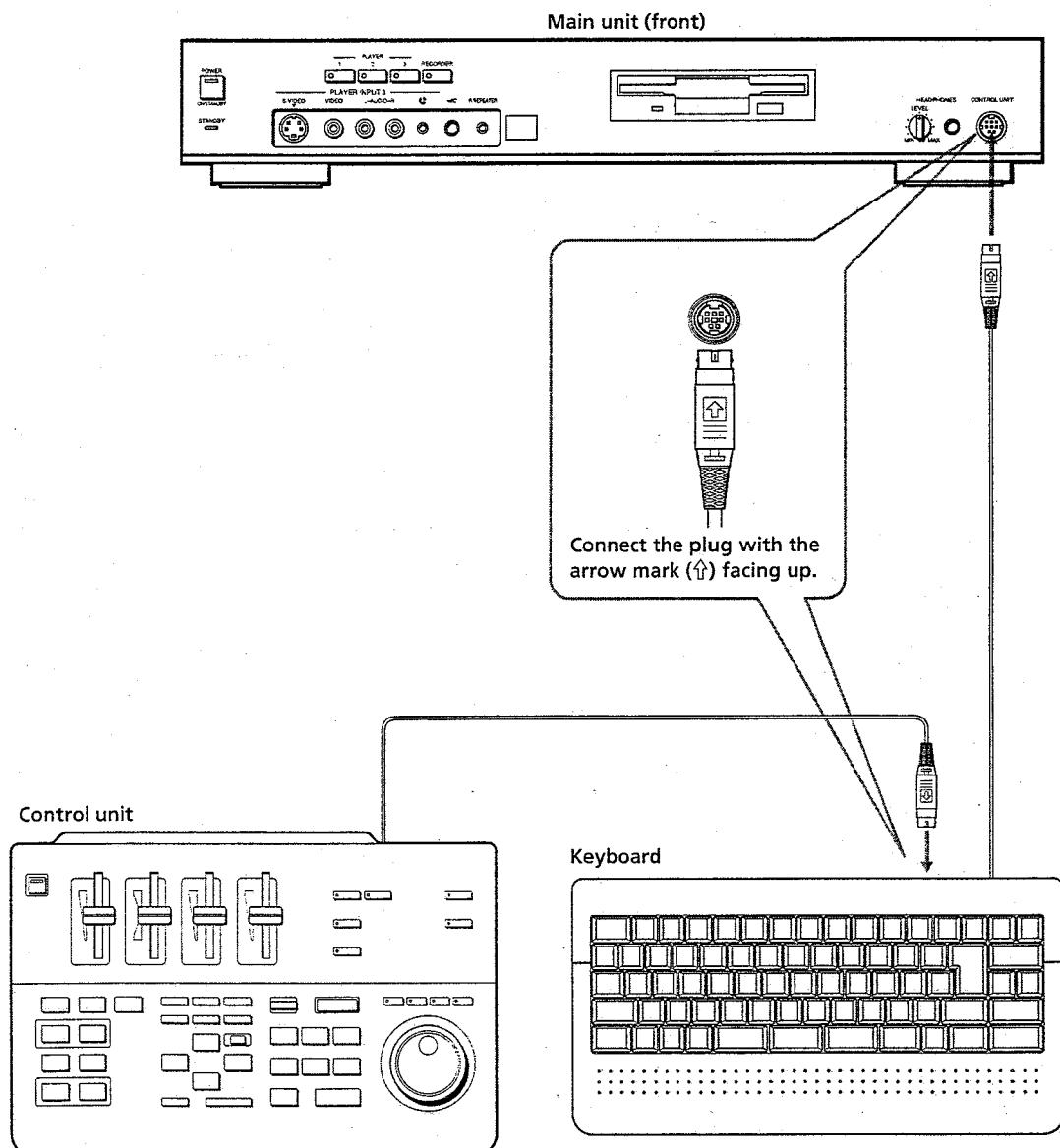
Connecting the TV and Power Sources



10 When the TV has no S video jack, connect to the VIDEO jack.

Connecting the Keyboard and Control Unit

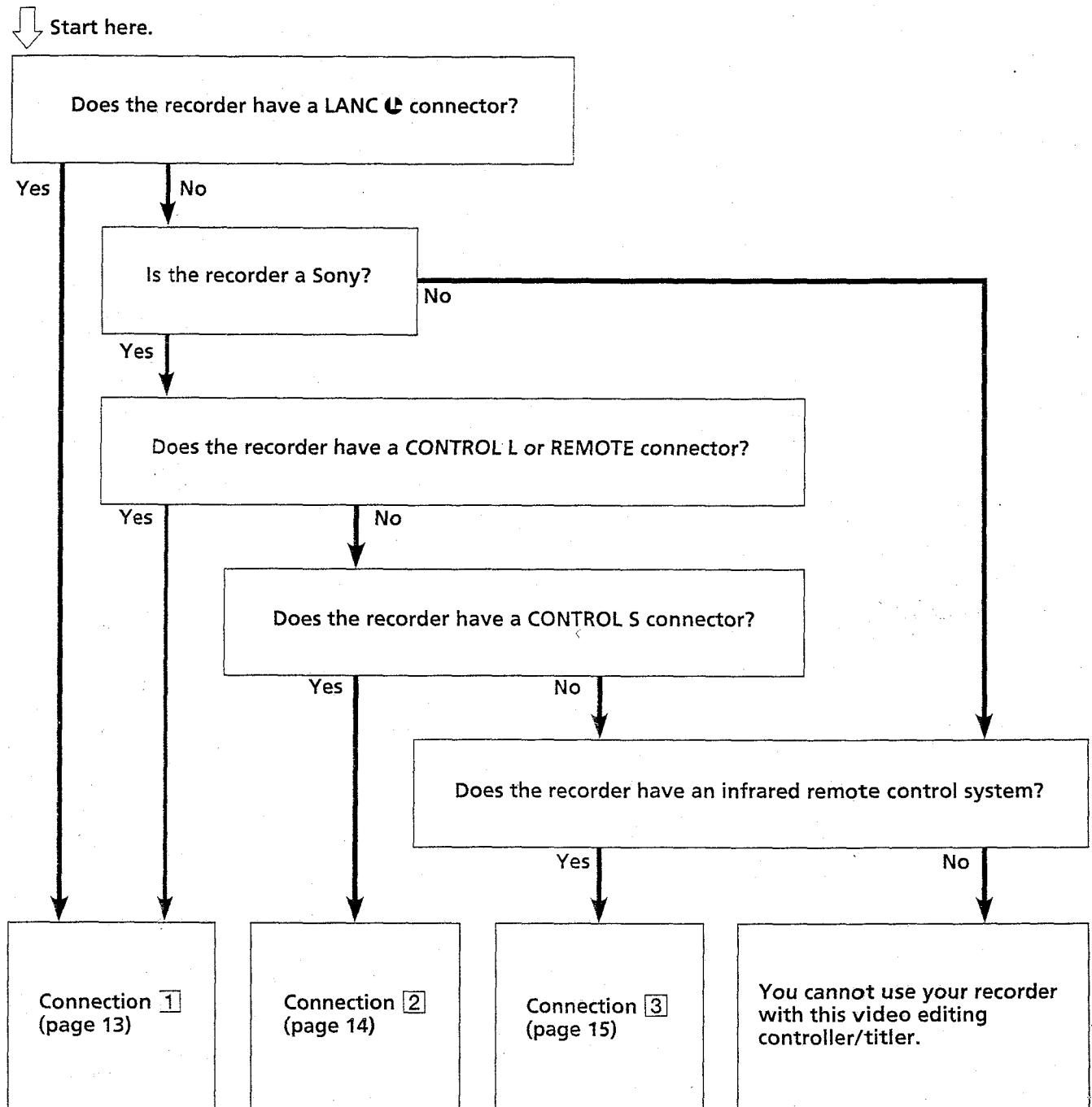
Connect the keyboard directly to the main unit, and the control unit to the keyboard.
You can connect the control unit directly to the main unit when you do not use the keyboard.



Connecting the Recorder

Which Connection to Make?

The way to connect the recorder depends on what kind of control jack or system the recorder has. Follow the flowchart below to find out the connection for your recorder. After connecting the recorder as described in the appropriate page, set the recorder control system (p.16).

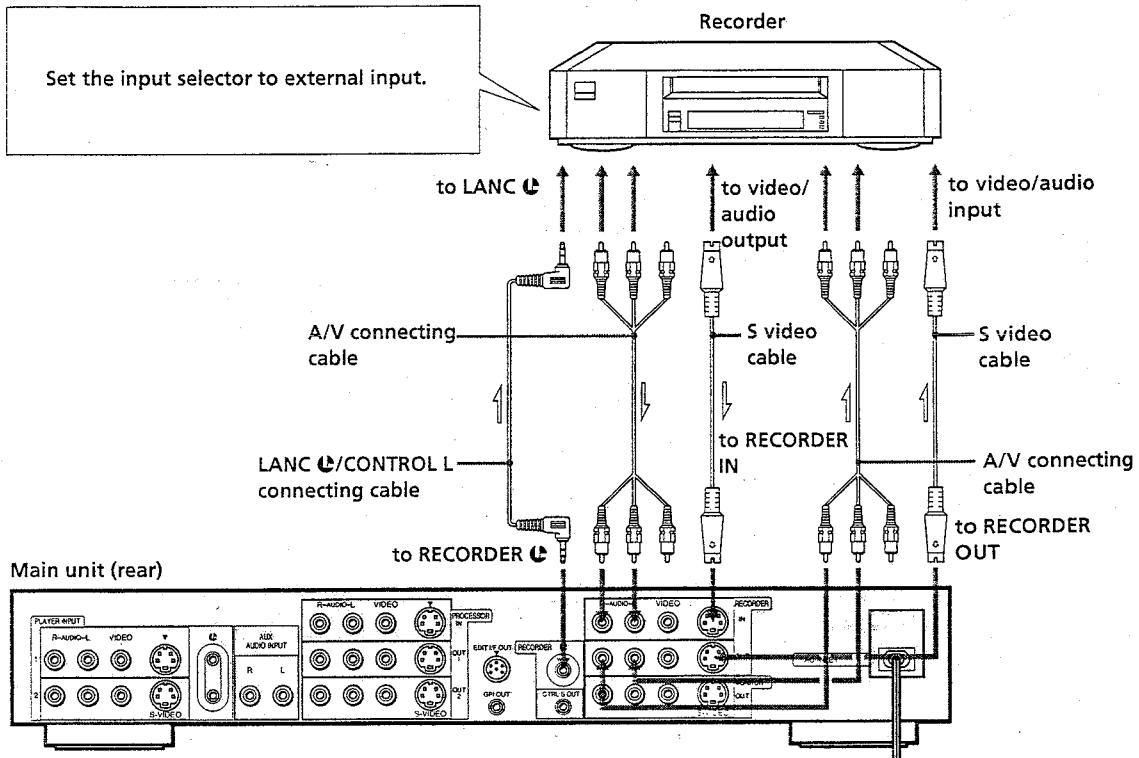


Connection 1

Connect as illustrated below;

- when your recorder has a LANC  connector, or
- when your recorder is a Sony and has a CONTROL L or REMOTE connector.

Note: When you connect to the VIDEO jack, do not use the S VIDEO jack. If you do, the video signal cannot be input. When the recorder has no S video jack, connect to the VIDEO jack.



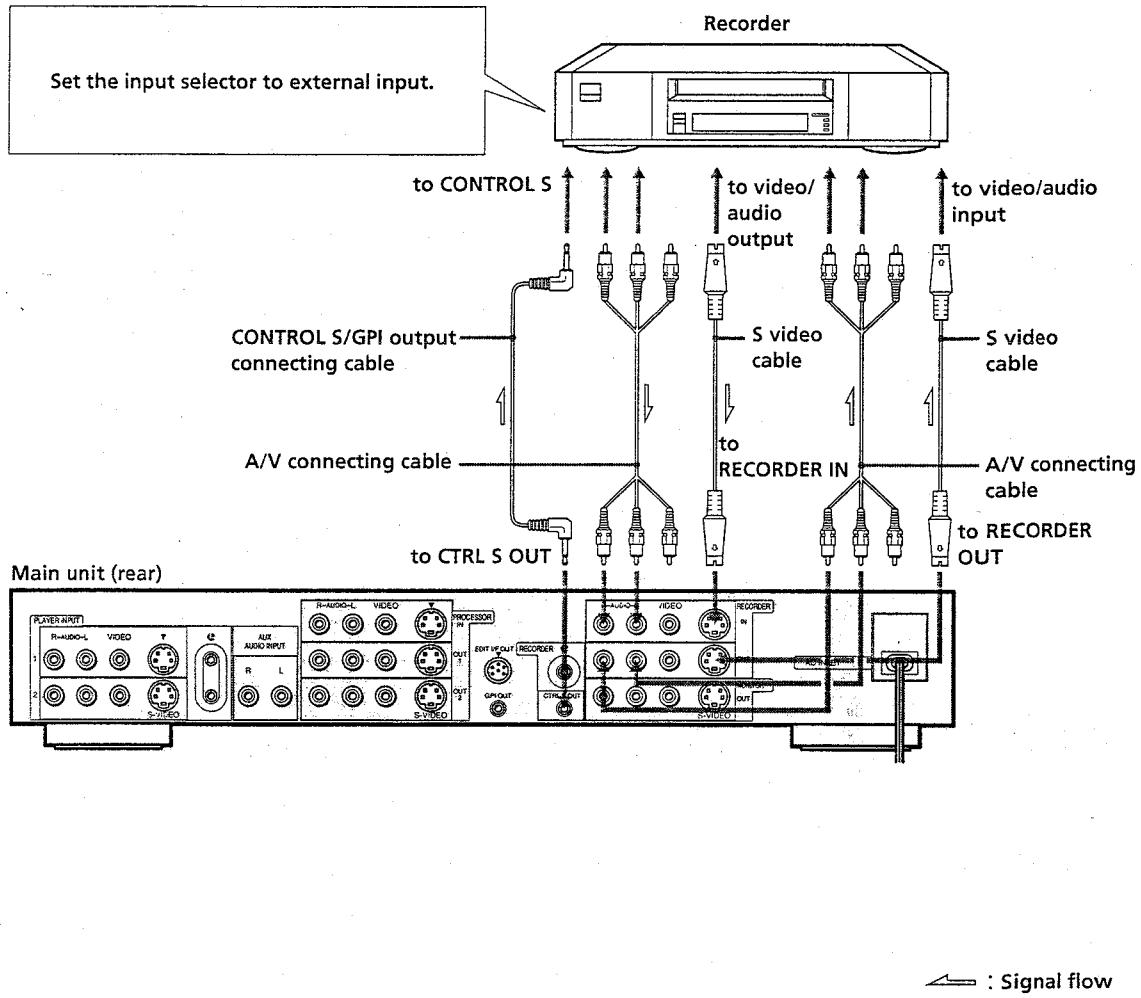
 : Signal flow

Connecting the Recorder

Connection 2

Connect as illustrated below when the recorder is a Sony and has the CONTROL S connector only. After connecting, set the recorder control system (p.16)

When the recorder has no S video jack, connect to the VIDEO jack.



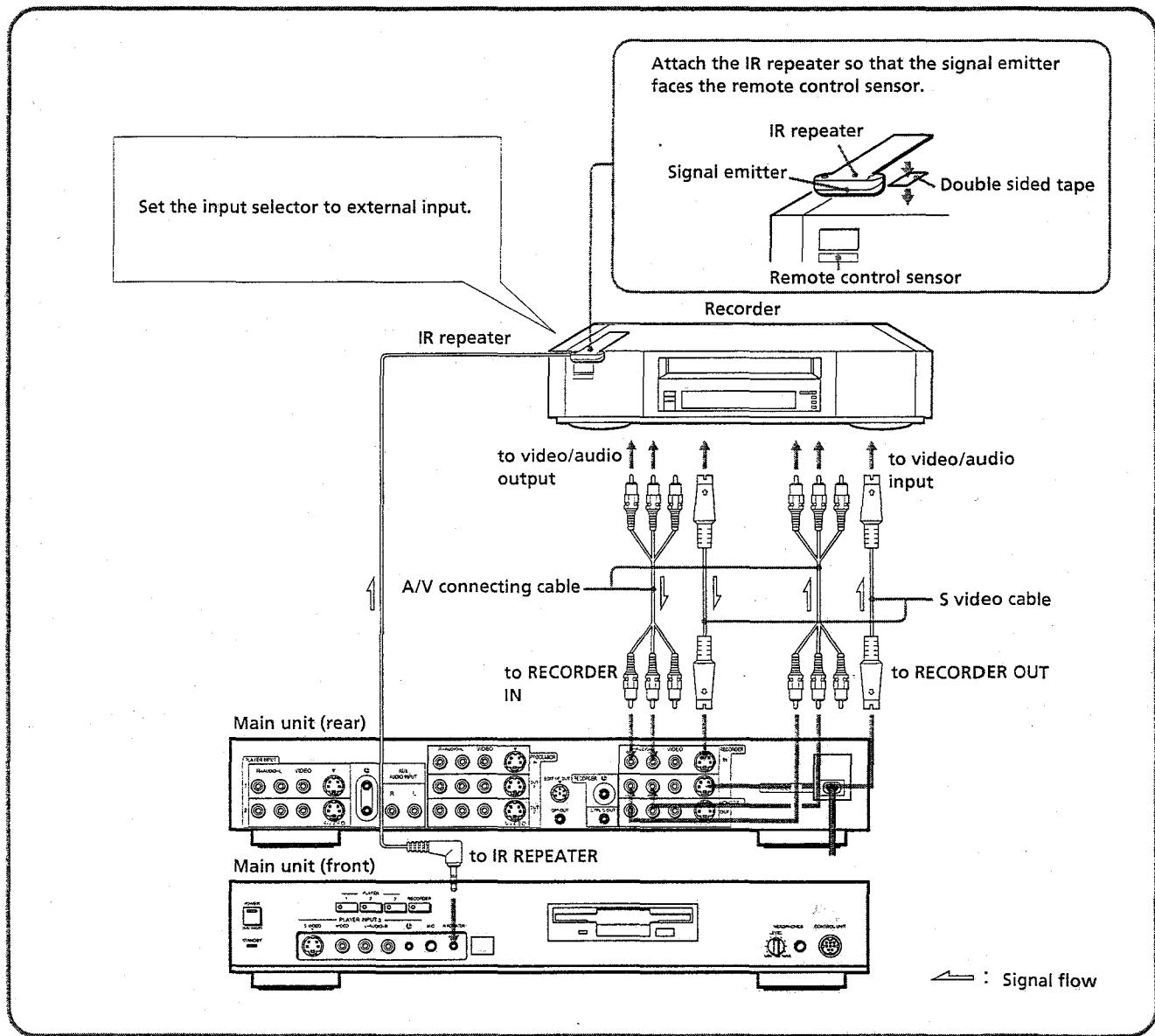
Connection 3

Connect as illustrated below when the recorder can be controlled with an infrared remote commander only.

The IR repeater connected to the main unit transmits the infrared signal to the recorder and players. Attach the IR repeater close to the remote sensor of the recorder.

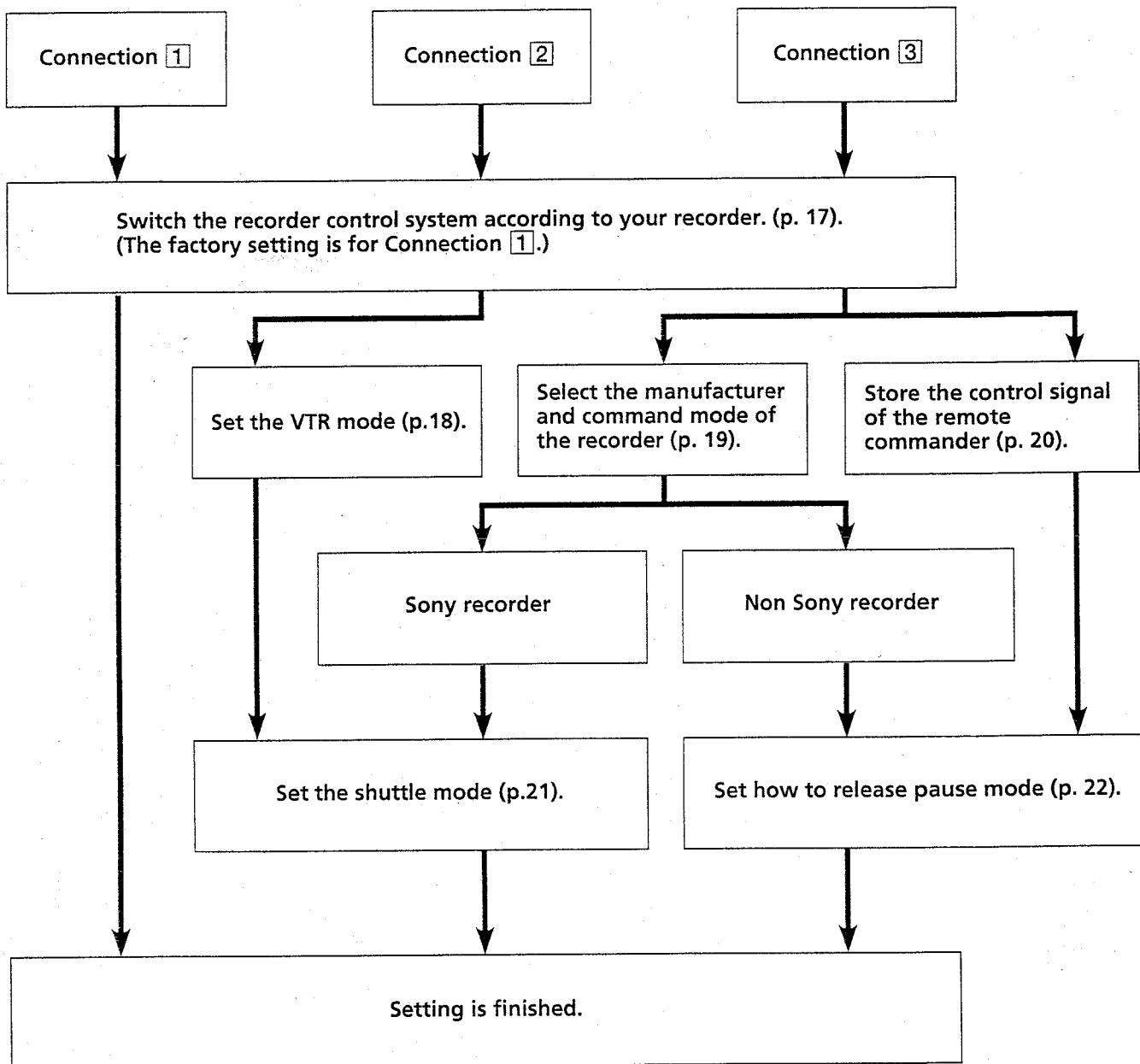
After connecting, set the recorder control system (p.16).

When the recorder has no S video jack, connect to the VIDEO jack.



Setting the Recorder Control System

According to the connection of the recorder, set the recorder control system so that you can control the recorder using the control unit.



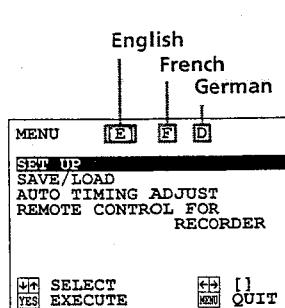
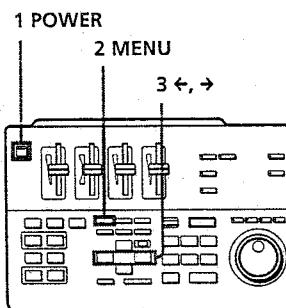
Switching the Menu Language

You can choose the English menu, the German menu or the French menu. The factory setting is English.

1 Press the POWER switch of the control unit (or main unit) to turn the power on.

2 Press MENU to display the main menu.

3 Press \leftarrow , \rightarrow to switch the language.



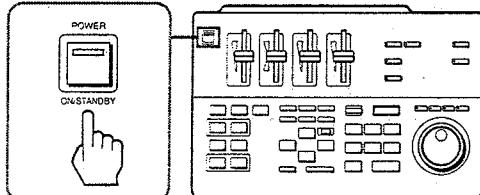
Selecting the Recorder Control System

Select the recorder control system according to the connection. The factory setting is LANC **④**. This setting is not necessary for Connection **①**.

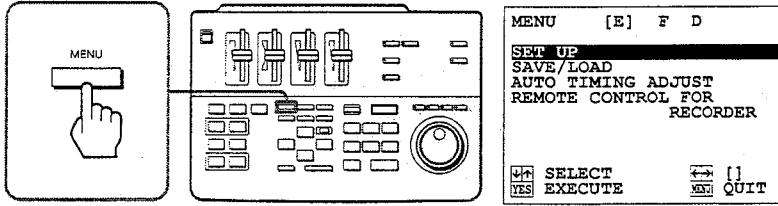
Preparations

Turn on the TV or monitor, and set the input selector to external input.

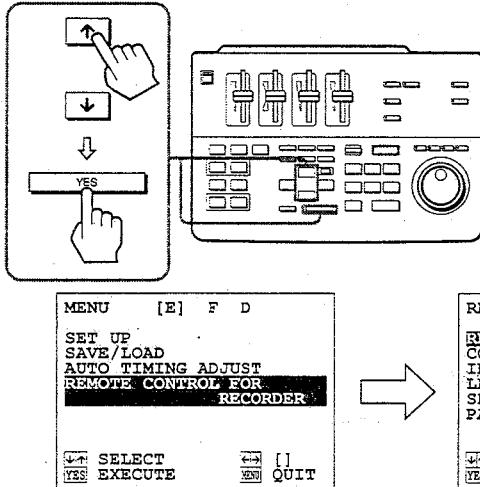
1 Press the POWER switch of the control unit (or main unit) to turn the power on.
The demonstration will be repeated.



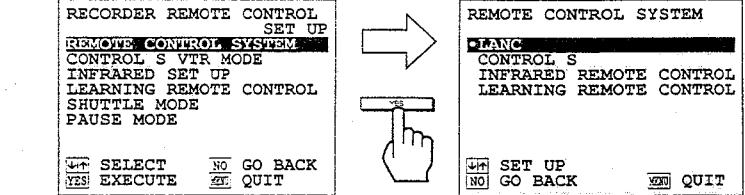
2 Press MENU.
The main menu appears.



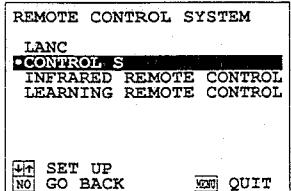
3 Press \uparrow , \downarrow to select the item for registering the recorder control system and press YES.
The menu of the selected item appears.



4 Press \uparrow , \downarrow to select the item for selecting the recorder control system, and press YES.
The menu of the selected item appears.



5 Move the ● mark to the appropriate item by pressing \uparrow , \downarrow .
Connection **①** → LANC
Connection **②** → CONTROL S
Connection **③** and you select the manufacturer → INFRARED REMOTE CONTROL
Connection **③** and you store the control signal → LEARNING REMOTE CONTROL



6 Press MENU.
The menu disappears.

Setting the Recorder Control System

Setting the VTR Mode

When you have connected the recorder using Connection [2], you must set the VTR mode. The factory setting is the VTR 2 (8 mm).

On the VTR mode

Type of remote control signal. To avoid mis-operation by remote control signal among Sony video equipment, there are three different command modes, VTR 1, VTR 2, and VTR 3. Other manufacturers also have their own command modes.

1

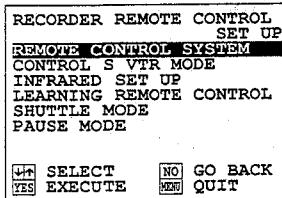
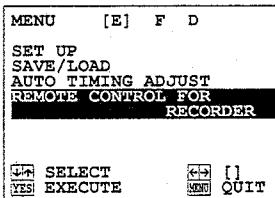
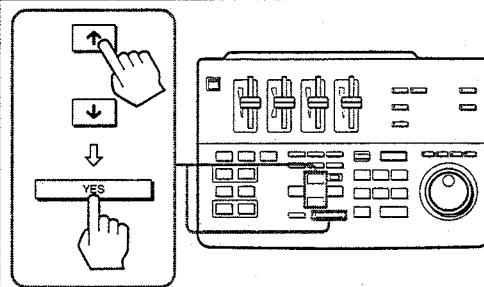
Press MENU.

The main menu appears.

2

Press \uparrow , \downarrow to select the item for registering the remote control system of the recorder, and press YES.

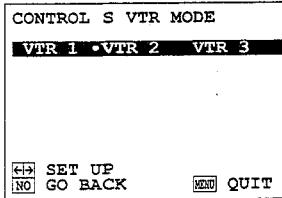
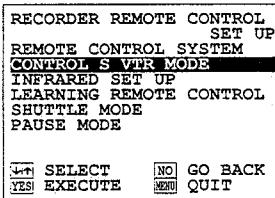
The menu of the selected item appears.



3

Press \uparrow , \downarrow to select the item for setting the command mode of the CONTROL S connector, and press YES.

The menu of the selected item appears.



4

Move the ● mark to the appropriate command mode by pressing \leftarrow , \rightarrow .

5

Press MENU.

The menu disappears.

Setting the Manufacturer and Command Mode of the Recorder

When you have connected the recorder using Connection 3, you must set the manufacturer and command mode of the recorder. This unit has the command modes of other manufacturers preset. Select the appropriate command mode in the menu system. If you cannot find the command mode for your recorder, store the control signal as described on page 20.

The factory setting is Sony VTR 2.

Notes

- You cannot use the jog-shuttle dial with a remote controller other than Sony's.
- Some buttons may not operate with some manufacturers recorders.

Preset manufacturers (command mode)

SONY (VTR 1)	MITSUBISHI (1)
SONY (VTR 2)	MITSUBISHI (2)
SONY (VTR 3)	MITSUBISHI (OLD SYSTEM)
PANASONIC (1)	HITACHI (1)
PANASONIC (2)	HITACHI (2)
PANASONIC (OLD SYSTEM 1)	TOSHIBA (1)
PANASONIC (OLD SYSTEM 2)	TOSHIBA (2)
JVC (1)	SHARP (1)
JVC (2)	SHARP (2)
JVC (OLD SYSTEM)	SHARP (OLD SYSTEM)
	SANYO (1)
	SANYO (2)
	NEC (1)
	NEC (2)

1

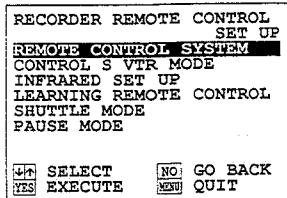
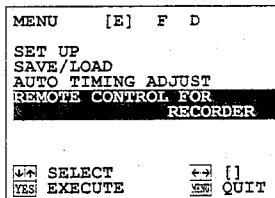
Press MENU.

The main menu appears.

2

Press \uparrow , \downarrow to select the item for registering the recorder control system, and press YES.

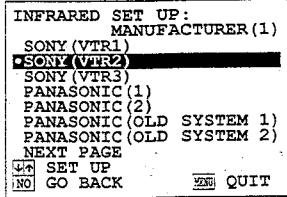
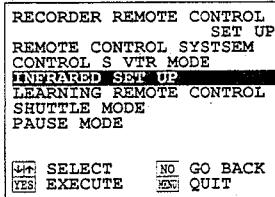
The menu of the selected item appears.



3

Press \uparrow , \downarrow to select the item for selecting the command mode of the recorder, and press YES.

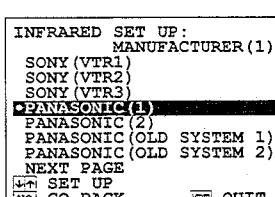
The command mode list appears.



4

Move the \bullet mark to the command mode of the recorder by pressing \uparrow , \downarrow .

If you are not sure which is the correct one, select one of them and try operating the recorder.



5

Press MENU.

The menu disappears.

After the setting, confirm that the recorder operates correctly.

Setting the Recorder Control System

Storing the Function of the Remote Commander

If you cannot find the command mode of the recorder on the preset command mode list (p.19), store the control signal in this unit so that you can control the recorder using the

control unit. However, in this case you cannot use the jog-shuttle dial.

1

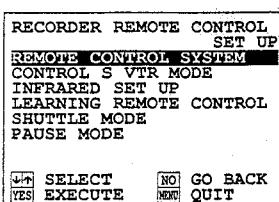
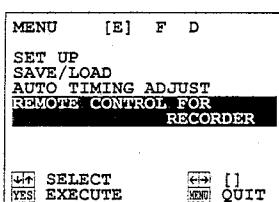
Press MENU.

The main menu appears.

2

Press \uparrow , \downarrow to select the item for registering the remote control system of the recorder, and press YES.

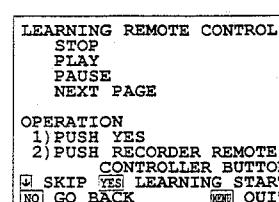
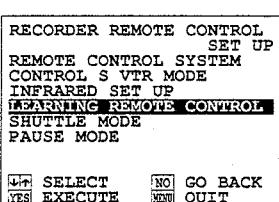
The menu of the selected item appears.



3

Press \uparrow , \downarrow to select the item for storing the control signal that is not preset, and press YES.

The menu of the selected item appears.



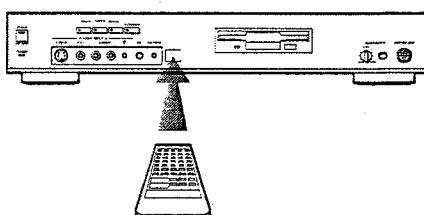
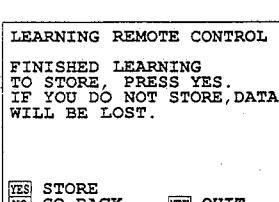
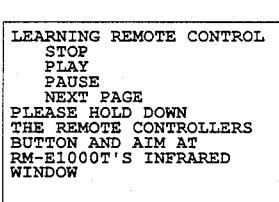
4

As indicated on the screen, press the button of the recorder's remote commander.

Continue the operation until the "FINISHED" message appears.

Aim the remote commander at the remote sensor of the main unit. Place the remote commander horizontally, 3 to 5 cm (1 3/16 to 2 inches) away from the remote sensor.

When the "FINISHED" message appears, press YES.
The control signal is stored.



5

Press MENU.

The menu disappears.

Notes on storing the control signal

- Do not move the main unit or remote commander.
- If you are instructed to press a button that is not on the remote commander, press the \downarrow button and go to the next step. Or, press any other button. (The function of the button will be stored.)
- You cannot operate the player and recorder using the control unit while storing the control signal.

- If you turn off the power of the main unit or control unit, the contents stored until then are erased. Make sure that you do not turn off the power until the "FINISHED" message appears.
- This unit cannot store the control signal of an ultrasonic remote commander or special remote commander.
- This unit may not be able to store every key function of some manufacturers.

Setting the Shuttle Mode

When you have connected the recorder using Connection **2**, or Connection **3** and you use a Sony remote commander, you must set the shuttle mode according to the recorder. The factory setting is A mode (for a recorder that cannot do

slow playback in reverse).

When you have connected the recorder using Connection **1**, this unit learns the shuttle mode of the recorder automatically.

1

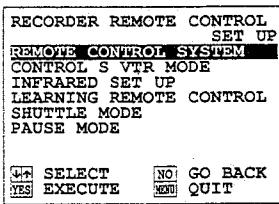
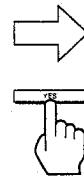
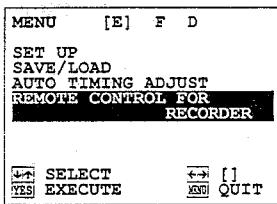
Press MENU.

The main menu appears.

2

Press \uparrow , \downarrow to select the item for registering the remote control system of the recorder, and press YES.

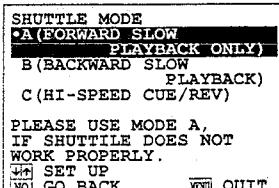
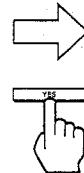
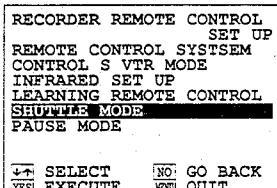
The menu of the selected item appears.



3

Press \uparrow , \downarrow to select the item for setting the shuttle mode, and press YES.

The menu to select the shuttle mode appears.



4

Move the ● mark to the appropriate shuttle mode by pressing \uparrow , \downarrow .

A (FORWARD SLOW PLAYBACK ONLY):

When an infrared remote commander is not supplied with the recorder, nor sold separately.

B (BACKWARD SLOW PLAYBACK):

When an infrared remote commander is supplied with the recorder, or sold separately.

C (HI-SPEED CUE/REV):

Besides the conditions of the B mode, the recorder can do fast-forward/reverse playback at high speed.

5

Press MENU.

The menu disappears.

Setting the Recorder Control System

Setting the Pause Mode Release Button

When you have connected the recorder using Connection 2 and 3, you must set which button to release recording pause mode on the recorder. The factory setting is the pause button.

1

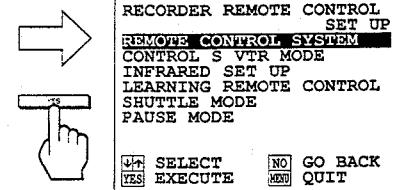
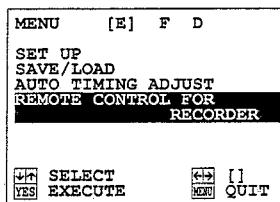
Press MENU.

The main menu appears.

2

Press \uparrow , \downarrow to select the item for registering the recorder control system, and press YES.

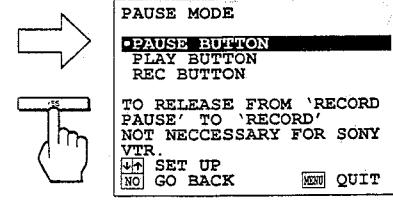
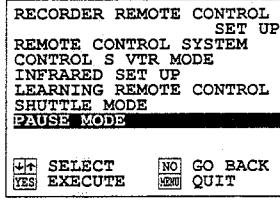
The menu of the selected item appears.



3

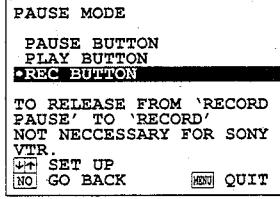
Press \uparrow , \downarrow to select the item for setting the pause mode release button, and press YES.

The menu of the selected item appears.



4

Move the ● mark to the appropriate item by pressing \uparrow , \downarrow .



5

Press MENU.

The menu disappears.

Connecting Other Equipment

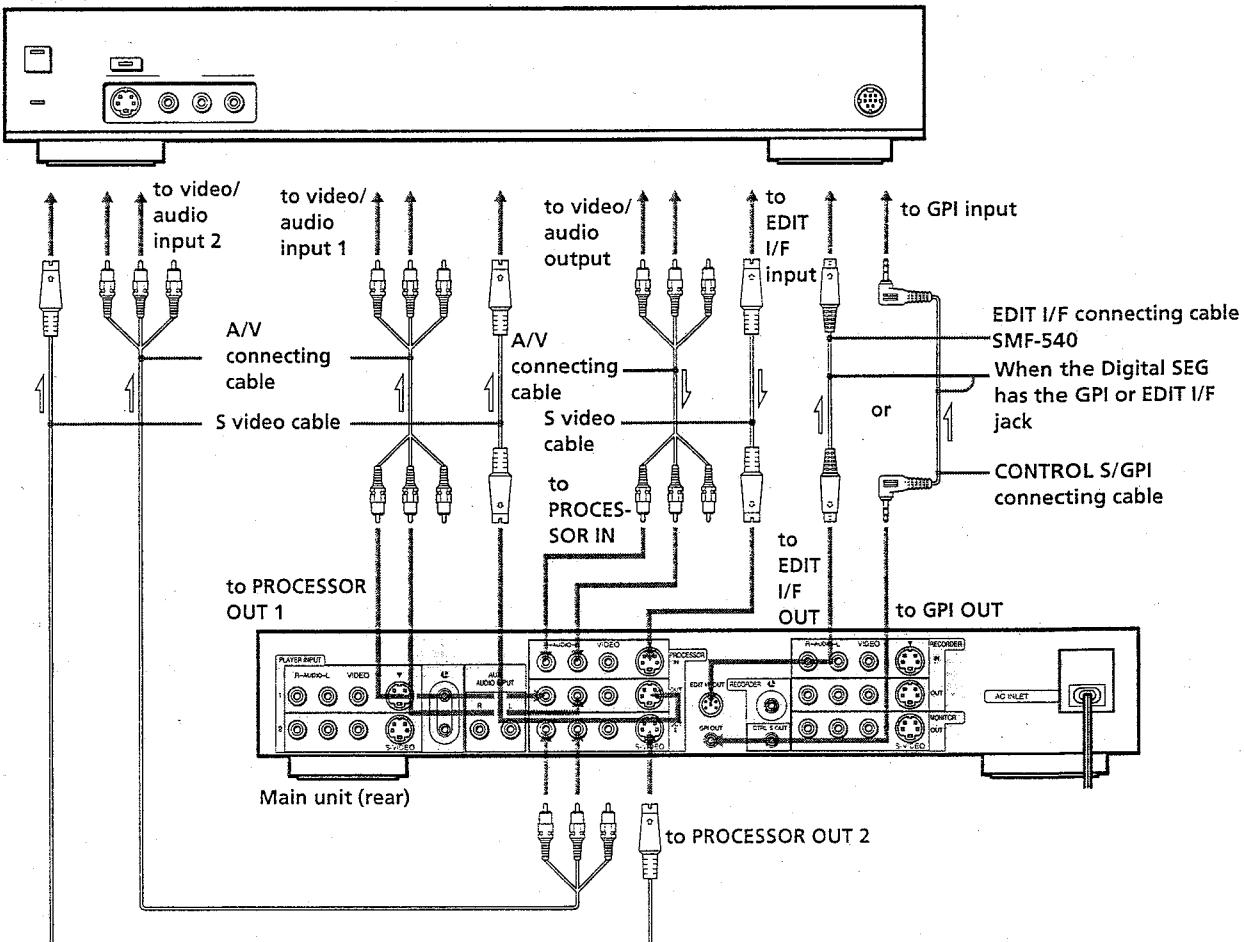
You can connect a digital SEG, audio equipment and microphone to the main unit.

Connecting the Digital SEG

Connect a Digital SEG to the PROCESSOR IN/OUT jacks of the main unit. If the Digital SEG has a GPI jack or EDIT I/F jack, you can transmit the GPI signal or EDIT I/F signal

from this unit to the Digital SEG and mix images or generate effects (p. 58).

Digital SEG



→ : Signal flow

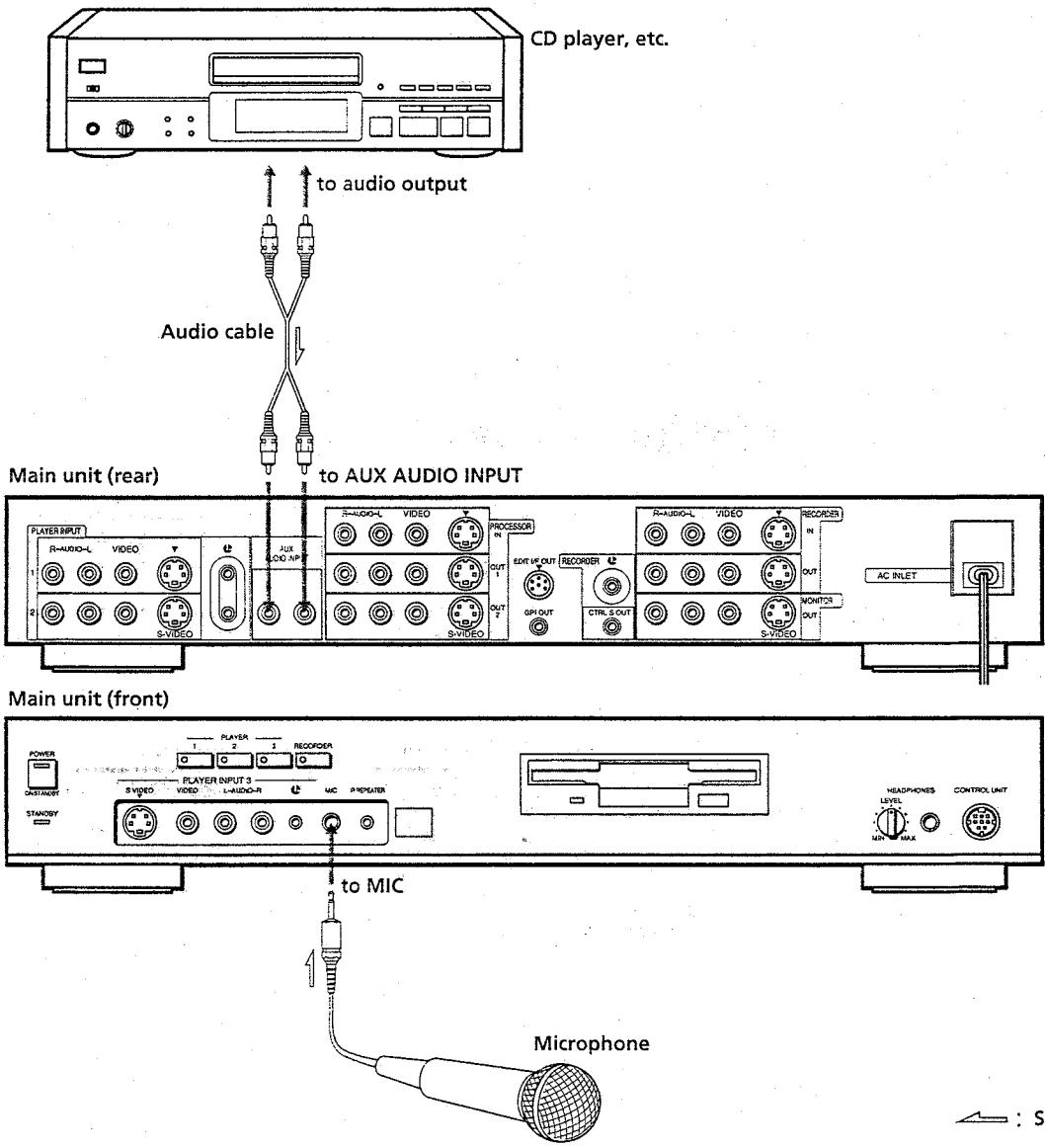
- When the Digital SEG has no S video jack, connect to the VIDEO jack.
- You can connect the player directly to the digital SEG.

Connecting Other Equipment

Connecting the Audio Equipment and Microphone

Connect the audio equipment to the AUX AUDIO INPUT jacks of the main unit. Connect the microphone to the MIC jack on the front of the main unit. You can mix the audio

signal of the picture and that of the audio equipment (p.44). Also, you can insert narration.



Note

You cannot use a microphone that is exclusive "plug-in-power" type.

Program Editing

Editing means to make a new tape from a prerecorded tape by deleting unnecessary scenes and allocating the scenes you want in the desired order.

Words Used in Editing

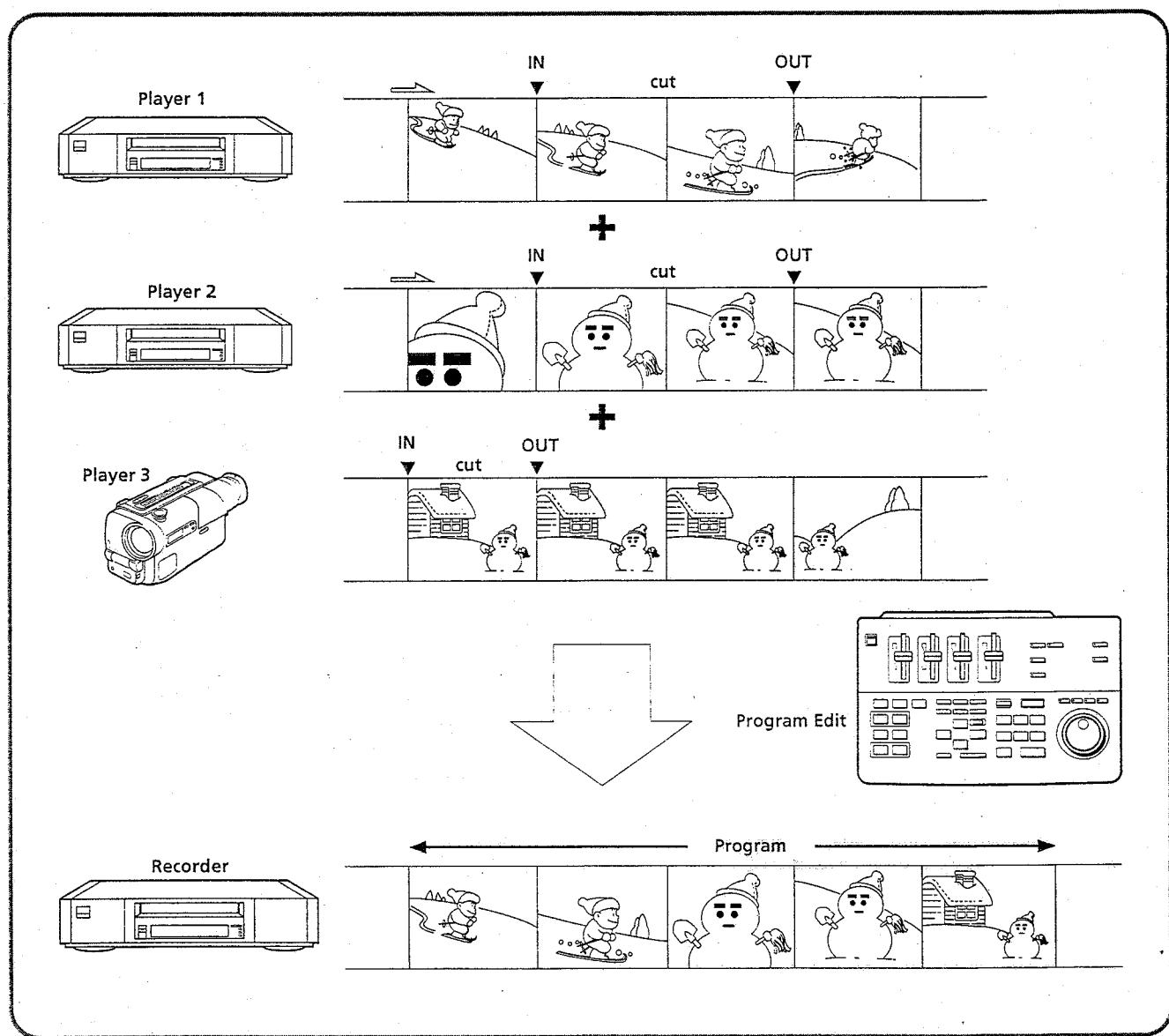
Cut	The each scene to be allocated for editing
IN point	The start point of a cut
OUT point	The end point of a cut
Program	A group of cut of desired length and allocation

Program editing

The automatic editing function of this unit is performed by pressing the EDIT START button after making the program.

Time code (RC time code)

This is the function to record the frame-by-frame position of the tape as a serial number of hour, minute, second, frame. As the picture and counter reading are identical, you can locate a scene precisely by the counter.



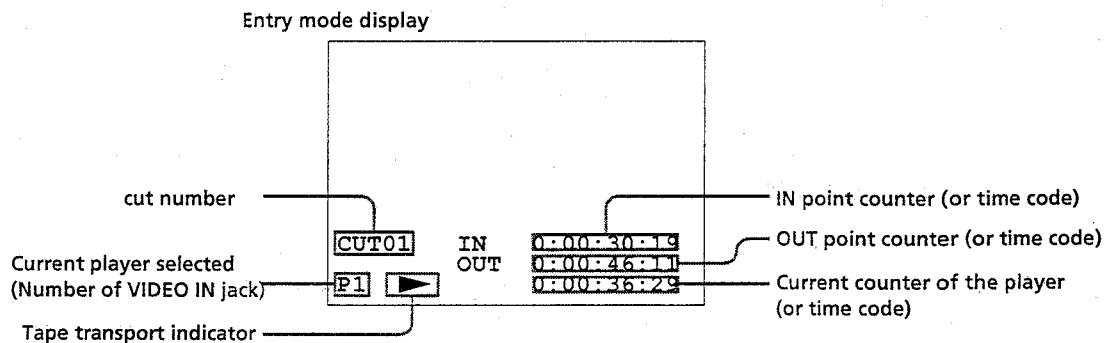
Program Editing

Procedure of the Program Editing

- 1** Turn the power on (p. 27).
- 2** Set the IN points and OUT points of the cuts (p. 28).
- 3** Preview the program (p. 31).
- 4** Execute the program editing (p. 32).

On-screen display while designating the cuts

The entry mode display appears.



On the entry mode display:

Pressing \uparrow , \downarrow changes the cut numbers.

Pressing \leftarrow , \rightarrow changes the display position.

How may cuts can be designated for a program?

If you edit using the RC time code*, you can designate up to 99 cuts in a program. If you do not use the RC time code, when you designate more than 20 cuts per player, the editing accuracy will deteriorate. When you edit more than 20 cuts, do the following.

- Before you designate the cuts, rewind the tape to the beginning and reset the counter to zero.
- Execute the program editing so that the number of cuts does not exceed 20 per player.
- Before executing each program editing mentioned above, rewind the tape to the beginning and reset the counter to zero.

* Rewritable Consumer time code

Notes on time code

- The RC time code is not compatible with the time code of products for institutional use.
- When editing using the RC time code, the RC time code must be recorded from the beginning to the end of the tape in series to edit correctly. If the RC time code is not recorded in series, the program editing may stop on the way. In such a case, record the RC time code from the beginning to the end of the tape again. (The previous time code or data code will be erased.)

To adjust the lag between the program and edited tape caused by the start time of the recorder or recording pause mode, see "Adjusting the Timing - To Edit Scenes Precisely" on page 45.

Preparations for the Program Editing

Before you start the editing operation, get the player and recorder ready. Refer to the operating instructions of the player and recorder.

Preparations Player

- Insert the tape you want to edit.
- If the player has an input/output selector for the video/audio jack, set it to "output".
- If the player has an edit switch, set it to "on". Picture deterioration will be minimized.
- If the player has an infrared remote commander, set it so that the player is not operated by the remote commander.
- If you use the RC time code, set the counter mode to time code.
- If the player has a LANC M/S switch or that in menu, set to "S".

Preparations Recorder

- Insert a tape that can be recorded. (Check the position of the safety tab to prevent recording.)
- Set the input selector to external input.
- Set the recording time, volume and so on. (Refer to the operating instructions of the recorder.)
- In case of LANC control and if the recorder has a LANC M/S switch or that in menu, set to "S".

With some recorders, the beginning and end of the recorded picture may become hard to see. To avoid such cases, we recommend inserting video-muted cuts (p. 41) at the beginning and end of a program.

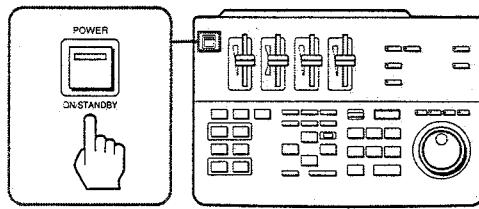
Procedure 1 Turning the Power On

1

Press the POWER switch of the control unit (or the main unit).

The lamp of POWER switch lights.
The unit repeats the demonstration.

You can make the demonstration not appear (p. 52).

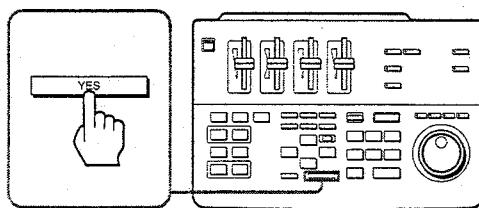


2

Press YES.

The entry mode display appears.

You can turn on or off the entry mode display by pressing DISPLAY ON/OFF.



CUT01 IN :---:---:
P1 ► OUT :---:---:
0:00:00:00

Program Editing

Procedure 2 Setting the IN and OUT Points

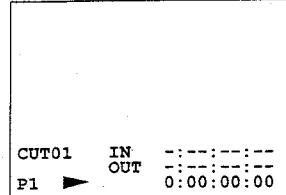
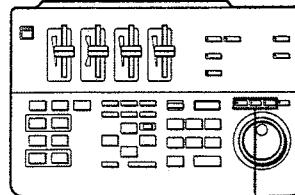
You can edit by connecting up to 3 players. To designate cuts, first select the player of the desired tape and then designate the cuts.

1

Select the tape of the desired scene by pressing **PLAYER (1, 2, 3)**.

The selected **PLAYER** button lights up.

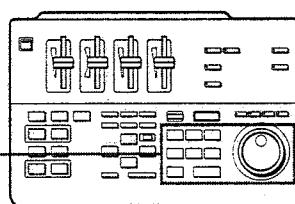
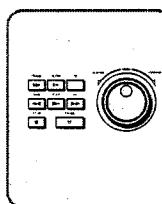
- [a] Player 1 (connected to **PLAYER INPUT 1**)
- [b] Player 2 (connected to **PLAYER INPUT 2**)
- [c] Player 3 (connected to **PLAYER INPUT 3**)



2

Locate the **IN** point of the cut using the tape transport buttons and jog/shuttle dial, and set the player to playback pause mode.

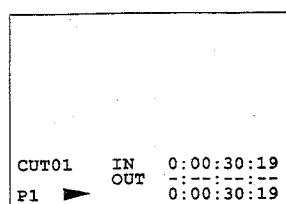
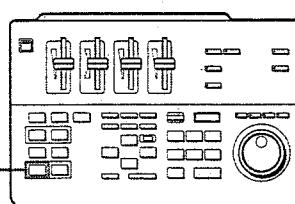
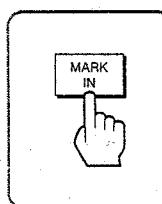
More than about 15 seconds of counter reading (about 15 counts for the 4-digit counter) is necessary from the beginning of the tape to the **IN** point.



3

Press **MARK IN**.

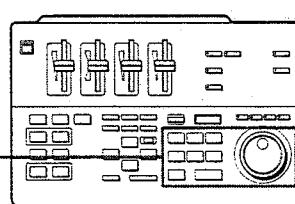
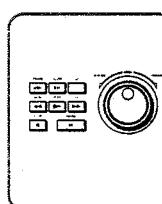
The **IN** point of the cut is set.



4

Locate the **OUT** point using the tape transport buttons and jog/shuttle dial, and set the player to playback pause mode.

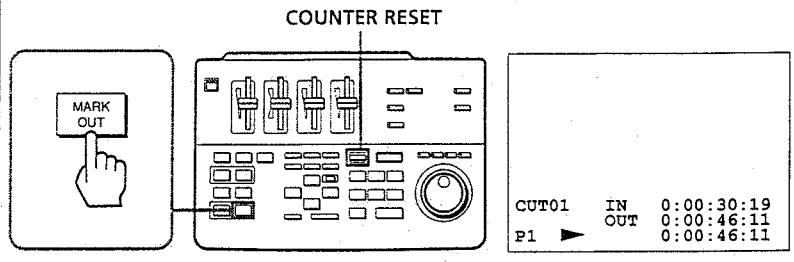
More than about 3 seconds of counter reading (about 3 counts for the 4-digit counter) is necessary from the **OUT** point to the end of the tape.



5

Press MARK OUT.

The OUT point of the cut is set.



6

Repeat steps 1 to 5 to set other cuts.

Cuts are stored in the program when they are set.

Make sure that you reset the tape counter to 0:00:00 (0000 for the 4-digit counter) at the beginning of tape.

Press COUNTER RESET.

If you use the RC time code, however, the COUNTER RESET button does not function.

The counter reading you can designate for cuts ranges from -8:59:59 to +8:59:59.

You cannot designate the counter readings out of this range.

Make a cut longer than 2 seconds (2 counts).

The unit cannot execute editing a cut shorter than 1 second (1 count). If the cut is displayed in white in the edit list, the unit will not edit the cut. If the cut is displayed in red, this unit will edit the cut. However, as the cut is not long enough, the cut may be recorded incorrectly. A cut longer than 2 seconds (2 count) is displayed in blue.

Operating the Jog/Shuttle Dial

You can use the tape transport buttons or jog/shuttle dial to transport the tape of the player that you have selected with the PLAYER or RECORDER buttons.

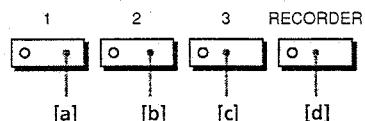
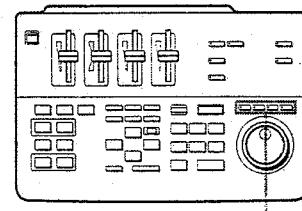
Select the desired player or recorder by pressing

PLAYER 1, 2, 3, or RECORDER.

The button of selected equipment lights.

When you select the recorder, the button of player that was selected before the recorder flashes. The signal (audio and video) of the flashing player is output from the RECORDER OUT jack of the main unit.

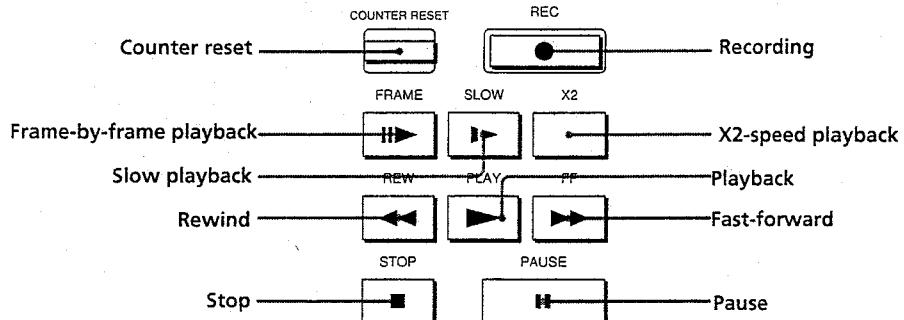
- [a] Player 1 (connected to PLAYER INPUT 1)
- [b] Player 2 (connected to PLAYER INPUT 2)
- [c] Player 3 (connected to PLAYER INPUT 3)
- [d] Recorder



Continued to the next page

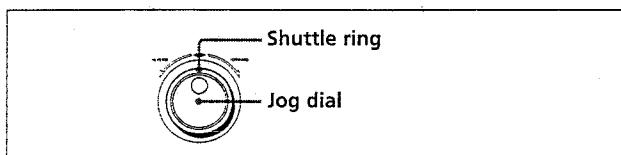
Program Editing

Tape transport buttons



On the jog/shuttle dial

The jog/shuttle dial functions differently depending upon the recorder. If you control a recorder other than LANC, set the shuttle mode (p. 21).



- The jog /shuttle dial may be slow to operate at the beginning as it learns the operations of player and recorder.
- You cannot use the jog /shuttle dial with non-Sony products.

The jog/shuttle dial functions as follows when used in infrared remote control mode.

Shuttle mode	Shuttle ring	Jog dial
A (FORWARD SLOW PLAYBACK ONLY)	Playback pause Reverse playback (Review)  Playback Fast-forward playback (Cue)	You cannot use the jog dial.
B (BACKWARD SLOW PLAYBACK)	Playback pause 1/5-speed reverse playback Reverse playback X2-speed reverse playback Reverse playback (Review)  1/5-speed playback Playback X2-speed playback Fast-forward playback (Cue)	To reverse  To forward
C (HI-SPEED CUE/REV)	Playback pause 1/5-speed reverse playback Reverse playback X2-speed reverse playback Reverse playback (Review) High speed reverse playback  1/5-speed playback Playback X2-speed playback Fast-forward playback (Cue) High speed fast-forward playback	To reverse  To forward

When you cannot set the recorder to playback pause mode with the jog/shuttle dial, use the **II** button.

Notes

The jog/shuttle dial may operate incorrectly in the following cases.

- You turned the jog/shuttle dial too quickly.
- The recorder is connected using Connection **2** or **3** (p. 14, 15).
- The player or recorder is slow to react to signals from the remote control unit.

- You do not need to keep pressing the button of the recorder's remote commander to do the picture search (Fixed picture search function).
- You turned the shuttle ring immediately after turning on the power. In this case, transport the tape using tape transport buttons once. The jog/shuttle dial will operate normally afterward.

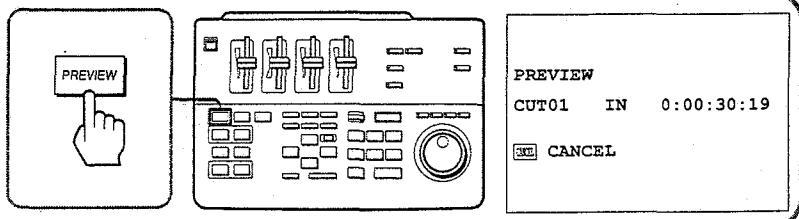
Procedure 3 Previewing the Program

After you have designated the cuts, preview the program to check that the cuts are the correct ones.

Previewing the Program

Press PREVIEW.

The program is played back.
To stop the playback, press CANCEL.



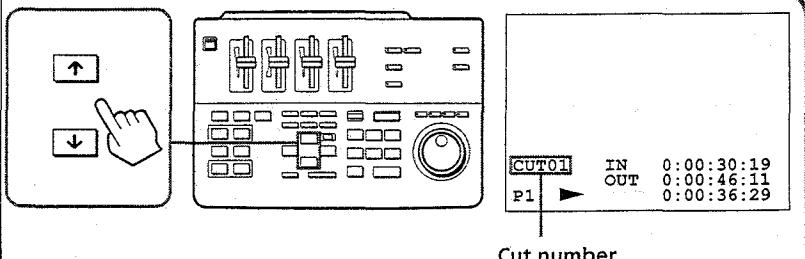
To check the total time, see page 37.

Previewing One cut

1

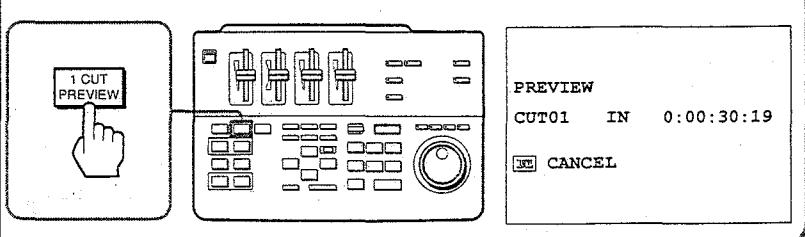
Press \uparrow , \downarrow on the entry mode display until the desired cut number appears.

The current scene of the player containing the cut appears on the screen.



2

Press 1 CUT PREVIEW.



Program Editing

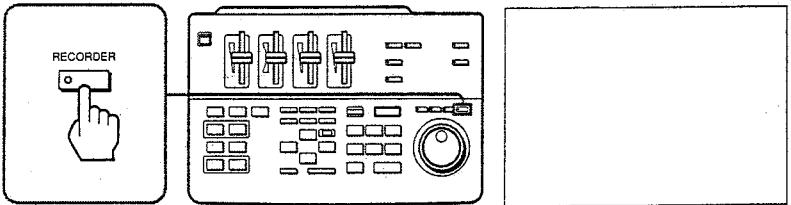
Procedure 4 Executing the Program Editing

This unit automatically edits and records the cuts you have designated for the program.

1

Press RECORDER.

The RECORDER button lights.
No on-screen display concerning the recorder appears.

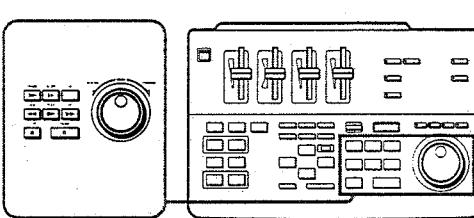


(Playback picture only)

2

Locate the recording starting point using the tape transport buttons and jog/shuttle dial, and set the recorder to playback pause mode.

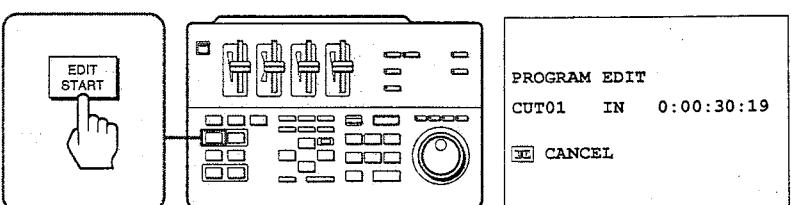
(In case of the infrared remote control and control S, set to recording pause mode.)



3

Press EDIT START.

The EDIT START button lights, and the unit starts program editing automatically.



When Program Editing is Finished

The player enters playback pause mode and the recorder enters recording pause mode.
You can select stop mode for the recorder (p. 52).

To Stop Program Editing

Press CANCEL. The player and recorder stop.

To Save the Programs

You can save the program data in a Sony 3.5-inch floppy disk (2HD and 2DD) (p. 56).

When You Finished Editing

Press POWER again.
The lamp of POWER button goes off. The STANDBY lamp of the main unit lights.

If You Will Not Use the Unit for Long Time

Unplug the power cord. The STANDBY lamp goes off.

To minimize the lag between the program and the edited tape

It is inevitable that a lag occurs between the program and the edited tape. There are three causes. One of them is that the IN and OUT points are designated by the counter

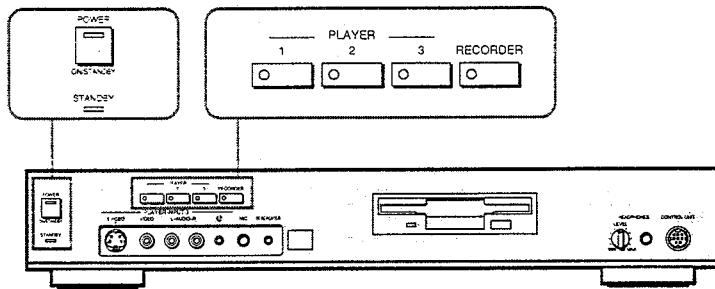
reading. There is lag between the counter reading and the actual frame. Against two other causes, we recommend the following method to minimize the lag.

Cause	Countermeasures
There is a lag at the start time or at the recording pause of the recorder.	Perform the timing adjustment (p. 45).
The IN and OUT points are set by the counter reading, and there is a lag between the playback picture and the counter reading of the player.*	Locate the IN and OUT points in fast-forward playback or reverse playback, without using the stop button. Use the fast-forward playback or reverse playback for executing program edit as well (p. 52).

* This lag does not occur when you edit using the RC time code on a player and recorder that are compatible with the RC time code.

When You are Not Editing

Even if you do not use the unit for editing, you can keep the player and recorder connected to the main unit and use this unit as the input signal selector.



1 Disconnect the control unit.

2 Press the POWER switch to turn the power on.

3 Select the input signal by pressing PLAYER (1/2/3)/RECODER.

When you select RECORDER

The signal (audio and video) of the player or lighting button (PLAYER 1/2/3) is output from the RECORDER OUT jack. The signal of the recorder (RECORDER) is output from the MONITOR OUT jack.

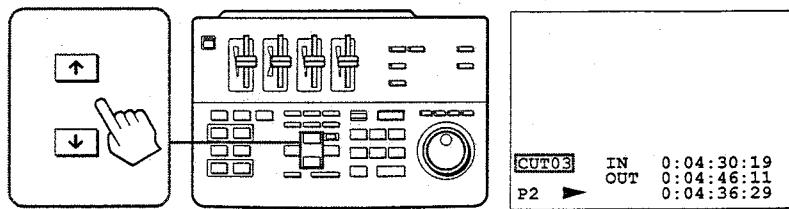
Revising the Program

You can change the IN and OUT points of the designated cuts or change the order of cuts. In addition, you can copy or delete cuts.

Changing the IN and OUT Points

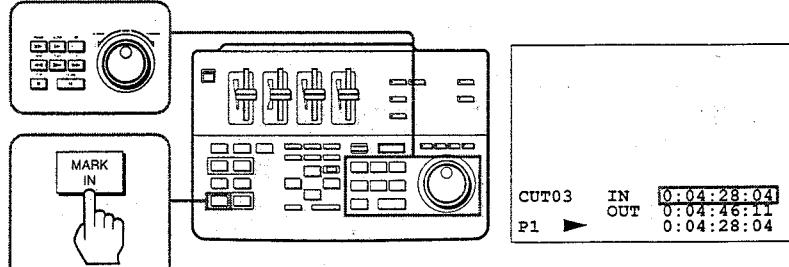
1 Press **↑, ↓** on the entry mode display until the cut number you want to change appears.

The current scene of the player containing the cut appears on the screen.



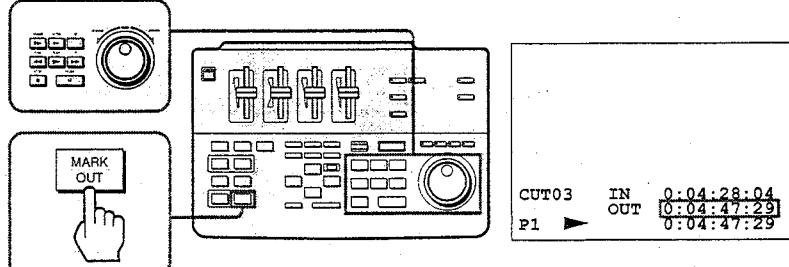
2 Locate the new IN point using the tape transport buttons and jog/shuttle dial, and press **MARK IN**.

The counter reading of IN point is revised.



3 Locate the new OUT point using the tape transport buttons and jog/shuttle dial, and press **MARK OUT**.

The counter reading of OUT point is revised.



You can change the IN and OUT points on the cut data display.

Select the cut you want to revise on the cut data display and locate the new IN and OUT points, or directly input the counter reading (p. 35).

Note

If the cut you selected is in a different player from the player currently selected, the IN and OUT points are shown as white in black. In this situation, you cannot change the IN and OUT points. Select the player of the cut you want to revise.

Adjusting the IN and OUT points

You can change the counter reading of the IN and OUT points on the cut data display to adjust by a few frames. In this case, the playback picture does not appear.

1

Press ↑, ↓ on the entry mode display until the cut number you want to revise appears (example: cut no. 4).

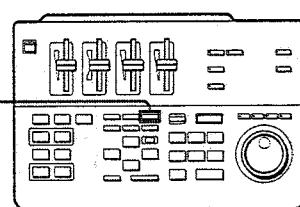
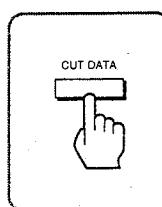
The current scene of the player containing the cut appears on the screen.

2

Press CUT DATA.

The playback picture disappears and the cut data display appears.

- [a] Items to be able to set on the cut
- [b] Counter readings

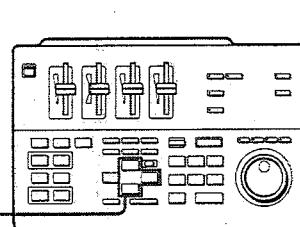
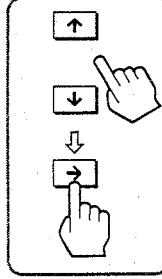


CUT 04		PLAYER1	
CUTNAME	"	IN	0:05:45:12
OUT		OUT	0:07:23:00
EFFECT		SYNC PB	- - - - -
EDIT I/F		EDIT I/F	- - - - -
EDIT I/F		EDIT I/F	- - - - -
EDIT I/F		EDIT I/F	- - - - -
EDIT I/F		EDIT I/F	- - - - -
TITLE			- - - - -

[a] [b]

3

Press ↑, ↓ to select the item (IN or OUT) you want to change, and press → until its counter reading flashes.



CUT 04		PLAYER1	
CUTNAME	"	IN	0:05:45:12
OUT		OUT	0:07:23:00
EFFECT		SYNC PB	- - - - -
EDIT I/F		EDIT I/F	- - - - -
EDIT I/F		EDIT I/F	- - - - -
EDIT I/F		EDIT I/F	- - - - -
EDIT I/F		EDIT I/F	- - - - -
TITLE			- - - - -

[a] [b]

4

Change the counter reading by pressing ↑, ↓.

Pressing ↑, ↓ changes the frame digits. The second and minute digits will increase or decrease accordingly.

If the counter does not display frame digits, pressing ↑, ↓ changes the second digits.

In case of a 4-digit counter, the last digit changes.

5

To reset other items, press ← and repeat steps 3 and 4.

6

Press CUT DATA.

The entry mode display appears again.

On the cut data display

Pressing ↑, ↓ moves the cursor to an item.

Pressing → makes the counter of the selected item flash so that you can write figures.

Pressing ← stops the counter flashing, and you can select an item.

When the cursor is at a cut number:

Pressing ↑ displays the cut data of the previous cut.

Pressing ↓ displays the cut data of the next cut.

Revising the Program

Naming the cut

You can name each cut using up to 12 letters, numbers, and symbols.

1

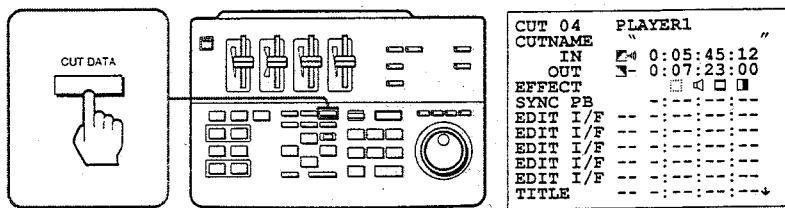
Press ↑, ↓ on the entry mode display until the cut number you want to name appears (example: cut no. 4).

The current scene of the player containing the cut appears on the screen.

2

Press CUT DATA.

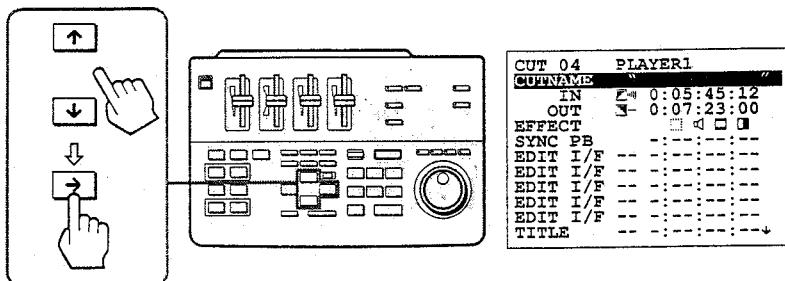
The playback picture disappears and the cut data display appears.



3

Press ↑, ↓ to select "CUT NAME" and press →.

The cursor moves to the position of first character to be written.

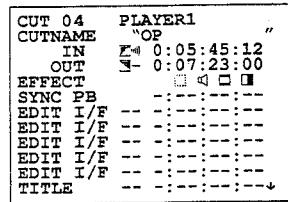
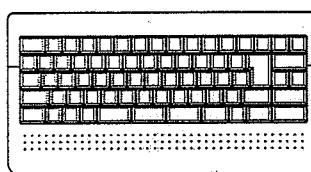


4

Type in the characters using the keyboard.

See page 54 for details.

Some of the characters cannot be used for cut name.



5

When you finish, press CUT DATA.

The entry mode display appears again.

You can write characters using the control unit.

In step 4, press ↑, ↓ until the desired character appears.

Then press → to go to next character position. You can write characters by repeating this operation.

To insert a space, press →.

Pressing YES switches to the upper case, lower case, and symbol/figure in turn.

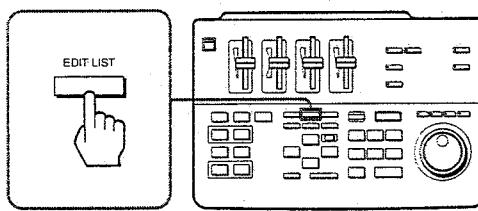
Moving/Copying/Deleting the Cut

You can move, copy and delete the cuts on the edit list.

Using the Edit List

Press EDIT LIST on the entry mode display.

The counter reading list of IN points appears.



Cut name list

EDIT LIST	NAME	CUT	lap
08>P1	Air port1		
09>P1	Air port2		
10>P1	Town1		
11>P1	Town2		
12>P1	Hotel1		
13>P1	Hotel2		
14>P2	Hotel3		
15>P2	Sea1		
16>P2	Sea2		
17>P2	Sea3		

Cut name

IN point list

EDIT LIST	name	CUT	lap
08>P1			0:11:10:00
09>P1			0:11:10:14
10>P1			0:07:10:00
11>P1			0:15:43:13
12>P1			0:03:17:20
13>P1			0:17:00:00
14>P2			0:03:04:07
15>P2			0:04:30:00
16>P2			0:21:32:19
17>P2			0:31:41:25

Cut number

Player number

Lap time list

EDIT LIST	name	CUT	LAP
08>P1			0:02:01:00
09>P1			0:00:43:03
10>P1			0:00:59:29
11>P1			0:03:29:00
12>P1			0:01:45:23
13>P1			0:02:20:00
14>P2			0:02:18:02
15>P2			0:01:15:00
16>P2			0:00:29:28
17>P2			0:02:38:12
		TOTAL LAP	0:40:15:18

Play time of each cut

On the edit list

Pressing \uparrow , \downarrow moves the cursor up and down so that you can select a cut.

Pressing \leftarrow , \rightarrow switches the cut list.

After you have selected a cut:

To locate the IN point scene, press GO TO.

To enter the entry mode, press EDIT LIST.

To display the cut data, press CUT DATA.

To return to the entry mode display, press EDIT LIST.

Checking the Total Time of the Program

The total time of selected cuts is displayed at the bottom of the lap time list (TOTAL LAP).

To Exclude a Cut While Program Editing is Executed

Select the cut and press NO to turn off the mark.

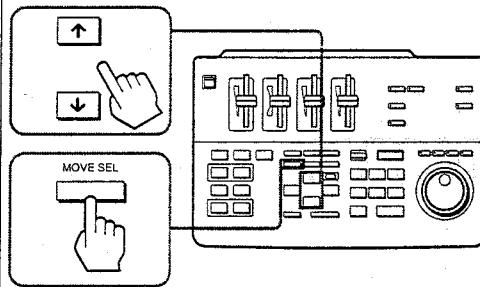
To include the cut, press YES to turn on the mark.

Revising the Program

Moving the Cut

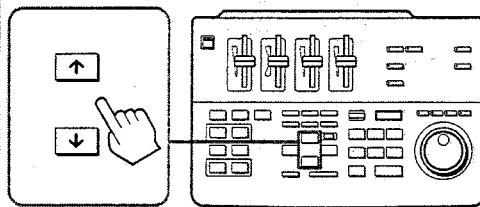
1

Press \uparrow , \downarrow on the edit list to select the cut you want to move, and press MOVE SEL.



2

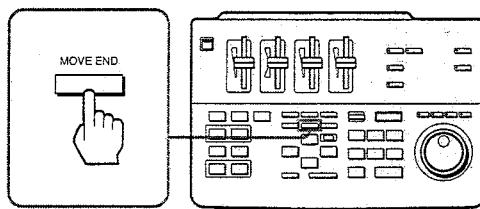
Press \uparrow , \downarrow to move the cut to the desired position.



3

Press MOVE END.

The cut is placed at the position set in step 2.

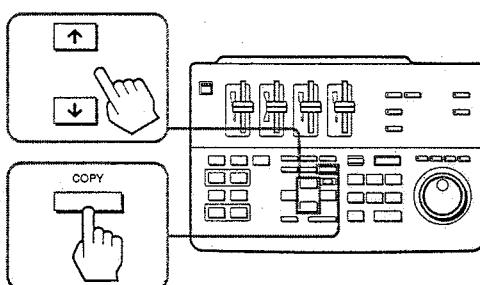


Copying the Cut

Press \uparrow , \downarrow on the edit list to select the cut you want to copy, and press COPY.

The copy of the cut is placed just after the original cut.

To insert the same cut at another position, first copy the cut and then move the copy of the cut to the desired position.

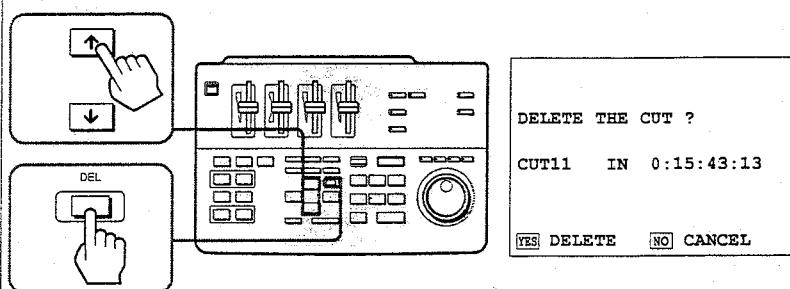


Deleting the Cut

1

Press **↑, ↓** on the edit list to select the cut you want to delete, and press **DEL**.

The message to confirm that the cut should be deleted appears.

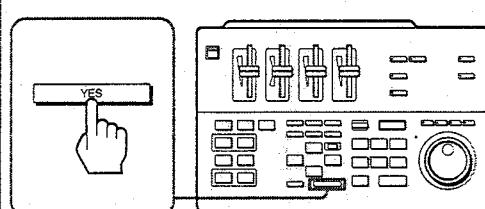


2

Press **YES**.

The cut is deleted.

If you want to cancel deleting the cut, press **NO** in step 2.



EDIT LIST [NAME]cut lap
08EP1 Air port1 ↑
09EP1 Air port2
10EP1 Town1
11EP1 Town2
12EP1 Hotel1
13EP1 Hotel2
14EP2 Hotel3
15EP2 Seal
16EP2 Sea2
17EP2 Sea3 ↓

EDIT LIST [NAME]cut lap
08EP1 Air port1 ↑
09EP1 Air port2
10EP1 Town1
11EP1 Hotel1
12EP1 Hotel2
13EP2 Hotel3
14EP2 Seal
15EP2 Sea2
16EP2 Sea3
17EP2 Sea4 ↓

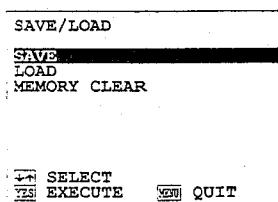
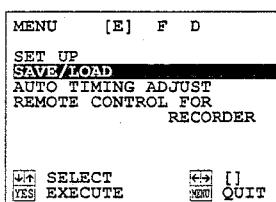
Clearing the Program Data from the Unit

The unit keeps the newest one of the program data in memory. You can clear the program data from the unit to restart making program from the beginning.

1

Press **MENU**.

The main menu appears.
To change the menu language, see page 16.



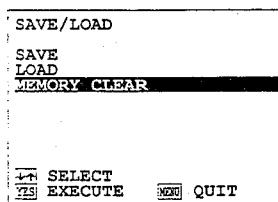
2

Press **↑, ↓** to select the item to save or load a program, and press **YES**.

3

Press **↓** to select the item to clear the data, and press **YES**.

The message to confirm that the data should be cleared appears.



4

Press **YES**.

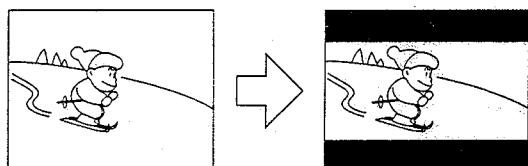
If you want to cancel clearing the data, press **NO**.

Generating the Special Effects

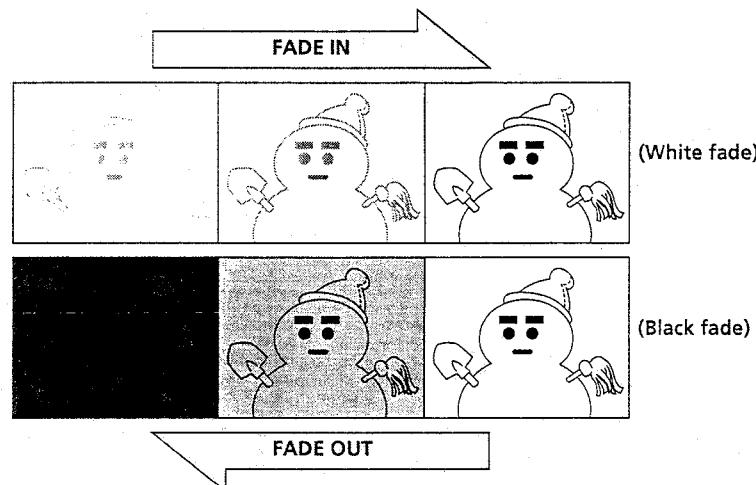
You can make your edited tape more impressive by generating special effects in the video and audio.

Monotone Black and white picture (p. 41)

Cinema Cuts off the top and bottom of the picture so that the picture looks wide just like a film (p. 41).



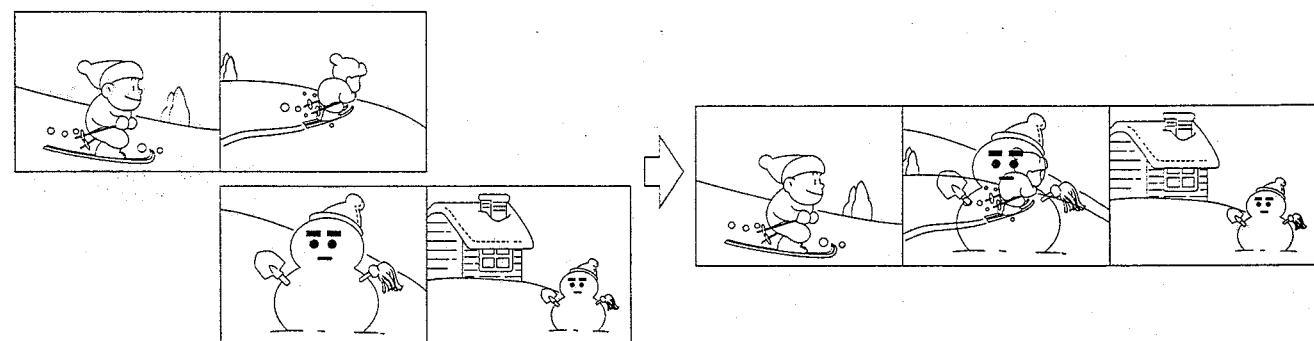
Fade Makes the video and/or audio appear or disappear gradually (p. 41, 43).



Mute Turns off the video and/or audio (p. 41).

Synchronized playback

..... Using the Digital SEG (not supplied), plays back the end of cut and the beginning of next cut overlapped (p. 42, 58).



Mixing Mixes in external audio during editing (p. 44).

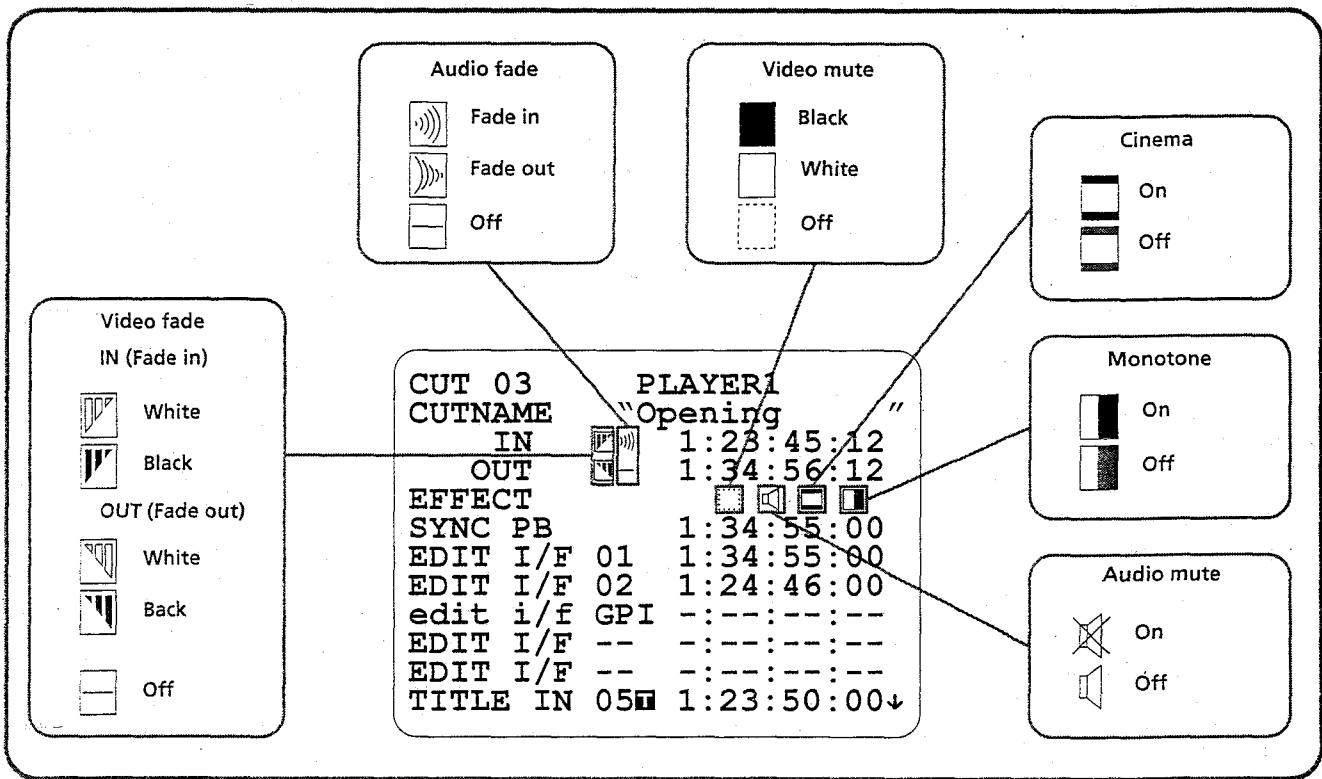
Monotone, Cinema, Fade, Mute, Synchronized Playback

Set the special effect on the cut data display. You can change the setting afterwards.

Cut Data

You can check or change the contents of the cut on the cut data display.

To locate the IN point, OUT point, SYNC PB point, EDIT I/F point, or GPI point from the cut data display, press GO TO after selecting each point on the cut data.



Continued to the next page

To check the monotone and cinema effects

Before you generate the effects, make a test to see how the picture will look with the effects.

Press the button of desired effect.

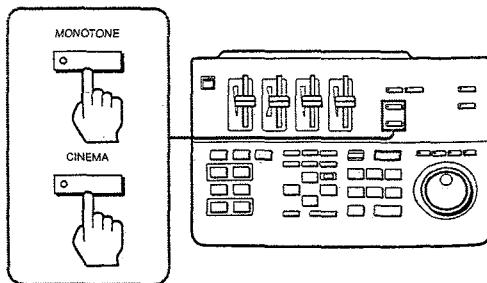
Monotone effect..... Press MONOTONE.

Cinema effect Press CINEMA.

The picture takes on the effect.

You can generate both effects for one cut.

After you have checked, press the button to turn off the effect.



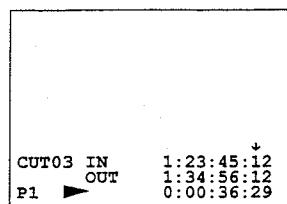
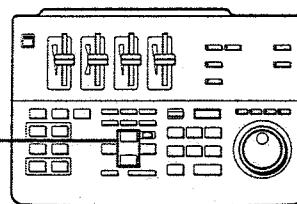
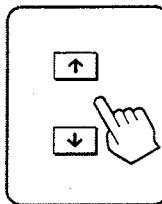
Generating the Special Effects

Setting the Effects

1

Press ↑, ↓ until the cut number you want appears.

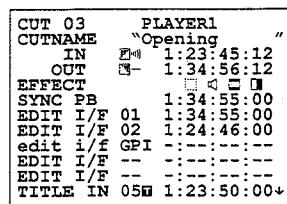
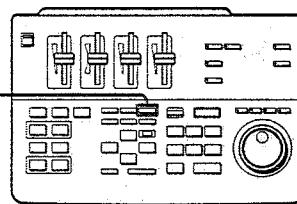
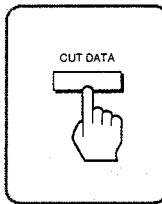
The current scene of the player containing the cut appears on the screen.



2

Press CUT DATA.

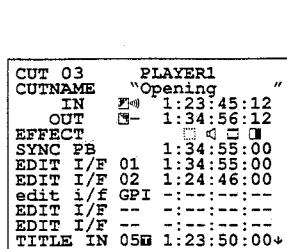
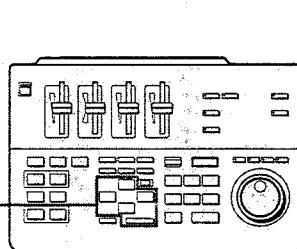
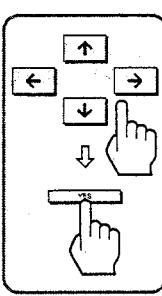
The cut data display appears.



3

Select the desired effect by pressing ↑, ↓, ←, →.

To move the cursor up and down and change the setting ↑, ↓
To move the cursor left or right and change the setting ←, →



4

Press ↑, ↓ until the desired effect mark appears.

Note on the Synchronized Playback

You can enjoy the A/B roll edit using the Digital SEG (not supplied). The Digital SEG equipment mixes the images by overlapping them.

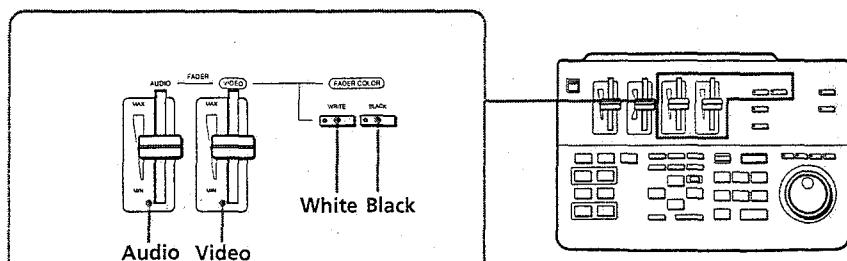
To make the A/B roll edit, connect the Digital SEG to the PROCESSOR IN/OUT jacks and press PROCESSOR ON/OFF to turn on. See page 58 for details.

Fading In/Out Manually

You cannot adjust the fading speed when you set fading on the cut data display. When you want to fade in or out matching the speed to the cut, edit (record) the cut manually and move the FADER lever.

Note

Make sure that the FADER lever is positioned at MAX when you do not want the effect.



Fading In

1 For video fade, press WHITE or BLACK.

The selected FADER COLOR button lights.

White fade WHITE

Black fade BLACK

2 Recorder: Locate the point to start recording and set to recording pause mode.

3 Player: Start playback from a few seconds before the IN point.

4 Position the FADER lever to MIN.

Video VIDEO FADER lever

Audio AUDIO FADER lever

5 Recorder: Start recording.

6 Move the FADER lever towards MAX as fast as you want.

The video/audio appears by fading in.

Fading Out

1 Position the FADER lever at MAX.

Video VIDEO FADER lever

Audio AUDIO FADER lever

2 For video fade, press WHITE or BLACK.

The selected FADER COLOR button lights.

White fade WHITE

Black fade BLACK

3 While recording, move the FADER lever towards MIN as fast as you want.

4 Stop recording and playback.

Generating the Special Effects

Audio Mixing

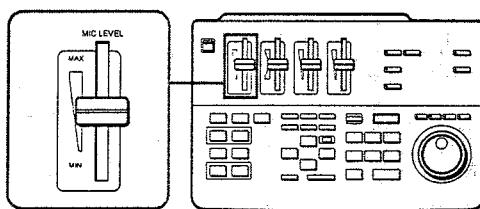
While performing the program editing, you can insert narration or mix in sound from connected audio equipment.

Mixing from Microphone

Use a microphone connected to the MIC jack on the front of the main unit to insert narration.

Adjust the microphone volume with the MIC LEVEL lever.

To turn up volume MAX side
To turn down volume MIN side

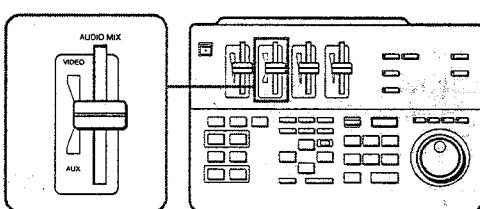


Mixing in the Sound of Audio Equipment

You can mix in the sound of audio equipment such as a CD player connected to the AUDIO INPUT jacks on the rear of the main unit.

Adjust the balance of the picture sound and the audio source with the AUDIO MIX lever.

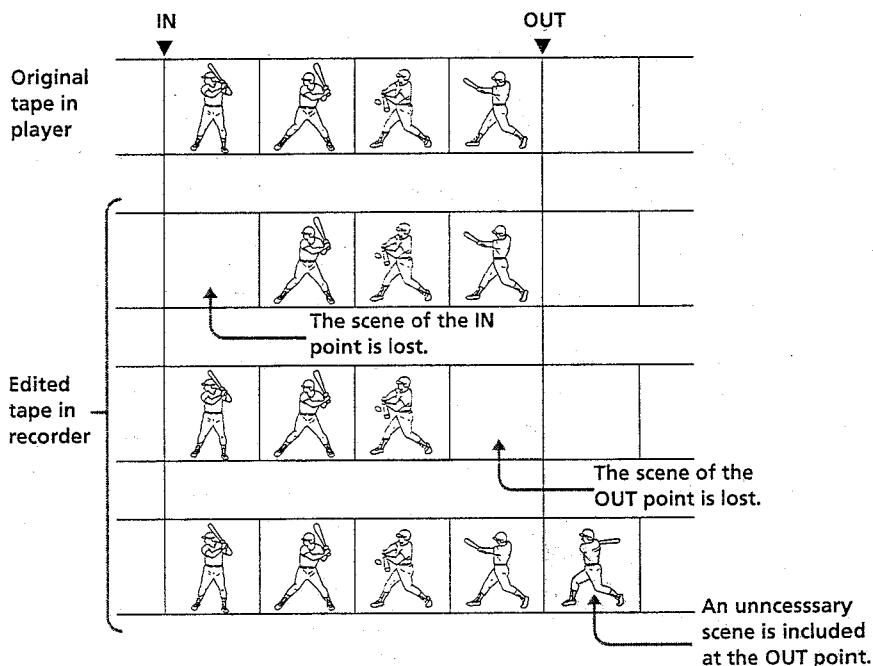
To turn up volume of picture sound VIDEO side
To turn up volume of audio source AUX side



Adjusting the Timing — To Edit Scenes Precisely

When you play back the tape that you edited using the program editing, the IN point and/or the OUT point may not be the scene you had designated. Some scenes may not appear, or some unnecessary scenes may be included. There are several possible causes for such discrepancies: some recorders are late to start recording, or some recorders

rewind the tape at the end of recording. Timing adjustment is the operation to compensate for the lag caused by the above characteristics of the recorder so that the cuts are more accurately recorded from the IN point to the OUT point as you designated.



Why the beginning of a cut is lost

For the program editing operations, this unit transmits a control signal to the player to play back from about 15 seconds before the IN point and to the recorder to release the recording pause mode at the IN point. Some recorders, however, require several seconds before starting recording after the recording pause mode is released. This is why the beginning of the cut is lost.

Why the end of a cut is lost, or an unnecessary scene is included at the end of a cut

For the program editing operations, this unit transmits a control signal to the player to play back until about 2 seconds after the OUT point and to the recorder to enter the recording pause or stop mode at the OUT point. Some recorders, however, require several seconds before entering recording pause or stop mode after recording. Or, when starting the next recording, some recorders rewind the tape a little and then enter recording pause or stop mode. This is why the end of the cut is lost, or an unnecessary scene is included at the end of the cut.

Once the timing adjustment has been done, this unit will automatically compensate for the characteristics of the recorder to ensure that the IN and OUT points are recorded accurately. This unit can compensate for the lag:

IN point

NTSC system - up to 5 seconds by 1/30 second (1 frame*)

PAL system - up to 5 seconds by 1/25 second (1 frame*)

OUT point

NTSC system - from -1 second to +4 seconds by 1/30 second

PAL system - from -1 second to +4 seconds by 1/25 second

* Frame

One frame equals one image. The number of frames displayed in one second differs depending upon the TV system.

NTSC system - about 30 frames per second

PAL system - about 25 frames per second

Adjusting the Timing — To Edit Scenes Precisely

Adjusting the Recorder's Timing

Procedure 1 Measure the Lag.

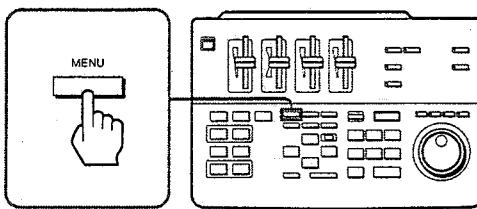
1

Insert a blank tape in the recorder.

2

Press MENU.

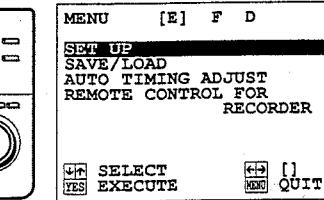
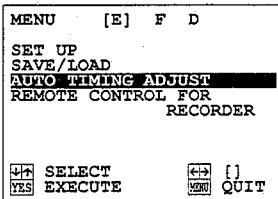
The main menu appears.
To change the menu language, see
page 16.



3

Press \uparrow , \downarrow to select the item
for measuring the timing
automatically, and press YES.

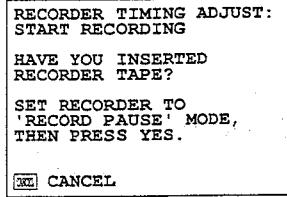
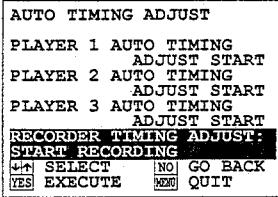
The menu of the selected item appears.



4

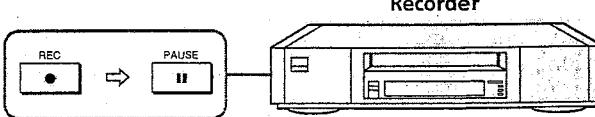
Press \uparrow , \downarrow to select the item
for making a tape to measure
the recorder's timing, and
press YES.

See page 49 to adjust player's timing.



5

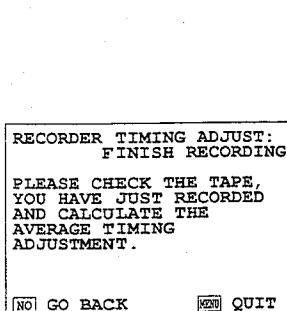
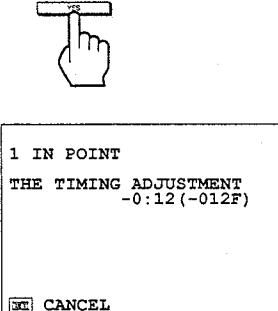
Set the recorder to recording
pause mode.



6

Press YES.

The timing adjustment data for 5 cuts
are recorded.



7

Press MENU.

The menu disappears.

The next procedure is to input the adjustment value in this unit to compensate for the lag (next page).

Procedure 2 Compensate for the Lag.

Preparations Have a pen or something to write with.

1

Press RECORDER, play back the recorded tape by frame-by-frame playback and write down the adjustment value of the IN point (the frame where the recording actually starts) and that of the OUT point (the frame where the recording actually stops).

IN

1 IN POINT
THE TIMING ADJUSTMENT
-0:21 (-021F)
<input type="button" value="CANCEL"/>

(Example)

IN 1	-0:21 (-021F)
IN 2	-0:22 (-022F)
IN 3	-0:23 (-023F)
IN 4	-0:20 (-020F)
IN 5	-0:24 (-024F)

Write down this figure.

OUT

1 OUT POINT
THE TIMING ADJUSTMENT
-0:02 (-002F)
<input type="button" value="CANCEL"/>

(Example)

OUT 1	-0:02 (-002F)
OUT 2	-0:06 (-006F)
OUT 3	-0:02 (-002F)
OUT 4	-0:04 (-004F)
OUT 5	-0:06 (-006F)

2

Obtain the average of the adjustment values.

Example IN: -0:22 (-022F)
OUT: -0:04 (-004F)

3

Press MENU.

The main menu appears.

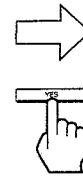
MENU [E] F D
SET UP
SAVE/LOAD
AUTO TIMING ADJUST
REMOTE CONTROL FOR RECORDER
<input type="button" value="SELECT"/> [] <input type="button" value="QUIT"/>

4

Press \uparrow , \downarrow until the item for setting or adjusting the options appears, and press YES.

The menu of the selected item appears.

MENU [E] F D
SET UP
SAVE/LOAD
AUTO TIMING ADJUST
REMOTE CONTROL FOR RECORDER
<input type="button" value="SELECT"/> [] <input type="button" value="QUIT"/>



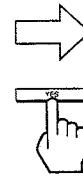
SET UP
INITIAL SET UP FUNCTIONS
ENTRY MODE SET UP
PLAYER/RECORDER SET UP
TIMING ADJUST DATA INPUT
<input type="button" value="SELECT"/> [] <input type="button" value="QUIT"/>

5

Press \uparrow , \downarrow to select the item for adjusting the timing manually, and press YES.

The menu of the selected item appears.

SET UP
INITIAL SET UP FUNCTIONS
ENTRY MODE SET UP
PLAYER/RECORDER SET UP
TIMING ADJUST DATA INPUT
<input type="button" value="SELECT"/> [] <input type="button" value="QUIT"/>



TIMING ADJUST DATA INPUT
RECORDER
IN POINT 0:00 (000F)
OUT POINT 0:00 (000F)
B ROLL
PLAYER 1 0:00 (000F)
PLAYER 2 0:00 (000F)
PLAYER 3 0:00 (000F)
GPI OUTPUT 0:00 (000F)
EDIT I/F 0:00 (000F)
<input type="button" value="NO"/> GO BACK <input type="button" value="QUIT"/>
<input type="button" value="ADJUST FINISH"/> []

Continued to the next page

Adjusting the Timing — To Edit Scenes Precisely

6

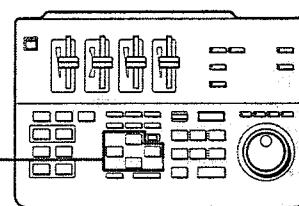
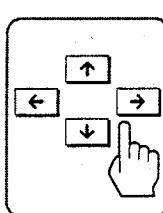
To compensate for the lag at the IN point, select "IN POINT" and press **→**.

To compensate for the lag at the OUT point, select "OUT POINT" and press **→**.

7

Press **↑**, **↓** until the adjustment value obtained in step 2 appears.

Input the value for the IN and OUT points.



TIMING ADJUST DATA INPUT	
RECODER	
IN POINT	-0:22 (-022F)
OUT POINT	-0:04 (-004F)
B ROLL	
PLAYER 1	0:00 (000F)
PLAYER 2	0:00 (000F)
PLAYER 3	0:00 (000F)
GPI OUTPUT	0:00 (000F)
EDIT I/F	0:00 (000F)
↑ ↓ ← →	NO GO BACK
ESC	QUIT

8

When you have finished, press **MENU**.

The timing adjustment is completed and the menu disappears.

If there is lag even after you have performed the timing adjustment, adjust it again manually.

Even if you have performed the timing adjustment using the automatic measurement, there may be some frames of lag. If the lags are uniform when you confirm the editing result, adjust the lag manually (p. 50).

The manual adjustment, however, may not be effective when:

- the lags are not uniform.
- you are recording in LP mode.
- you are editing with other than the RC time code.
- you use a 4-digit counter during A/B roll editing.

Notes

On the recorder

- With some recorders, the lag at the IN point of the first cut of the program is different from that of other cuts.
- With some recorders, the lag at the OUT point of the last cut of the program is different from that of other cuts.
- Perform the timing adjustment again when:
 - you change the recording mode (SP/LP).
 - you change the control connection of the recorder and this unit.

On the player

- Accurate compensation by frame is only possible with video equipment having the RC time code recording function. Use the video equipment on the RC time code, not the HMS counter.
- Accurate compensation is not possible with video equipment lacking the RC time code recording function.

On the recorder and player

Accurate compensation is not possible with video equipment that produces noise in the picture during the playback pause mode, or does not have the frame-by-frame playback function.

Adjusting the Player's Timing

When you execute the A/B roll edit or synchronized playback, the images may overlap at a different point from the SYNC PB point you set. The reason for this is that the player which starts playback later (B roll player) starts playback later than the SYNC PB point. To compensate for the lag, perform the timing adjustment for the player. As the lag may differ depending upon individual player, perform the timing adjustment for each player.

Two ways of timing adjustment are available.

Automatic measurement

This unit measures the tape in the player for the lag, then inputs the adjustment value automatically.

Manual adjustment

You can revise the adjustment value obtained in the automatic measurement, or input the adjustment value directly.

Automatic Measurement

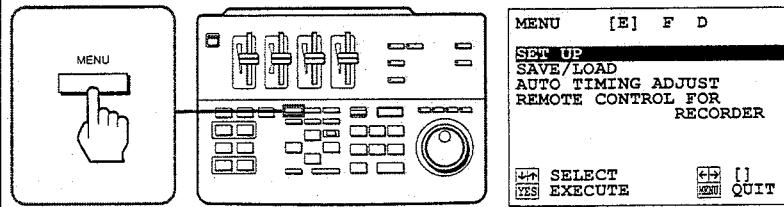
1

Insert a recorded tape in the player and rewind the tape.

2

Press MENU.

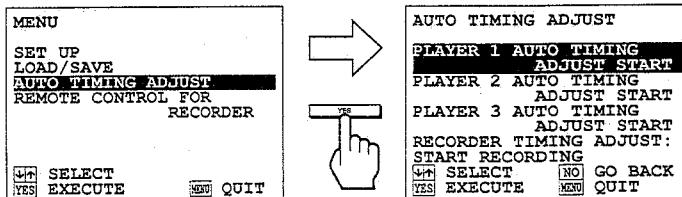
The main menu appears.



3

Press \uparrow , \downarrow to select the item for measuring the timing automatically, and press YES.

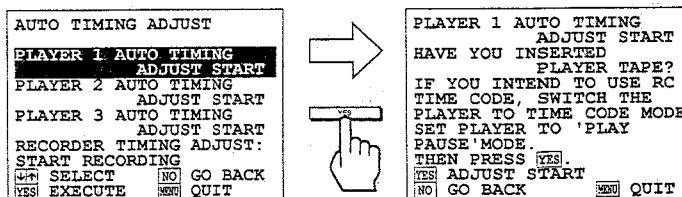
The menu of the selected item appears.



4

Press \uparrow , \downarrow to select the player you want to measure, and press YES.

The automatic measurement display of the selected player appears.



5

Press YES.

After this unit measures the lag, it inputs the adjustment value automatically.

6

After the operation finishes, press MENU.

The menu disappears.

You can revise the adjustment value (next page).

Adjusting the Timing — To Edit Scenes Precisely

Manual Adjustment

You can revise the adjustment value obtained in the automatic measurement. When you find some lag in the GPI output and EDIT I/F output timing, make the adjustment described below. In this case, measure the lag by yourself.

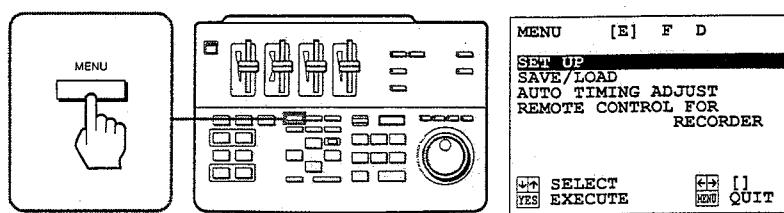
The manual adjustment, however, may not be effective when:

- the lags are not uniform.
- you are recording in LP mode.
- you are editing with other than the RC time code.
- you use a 4-digit counter during A/B roll editing.

1

Press MENU.

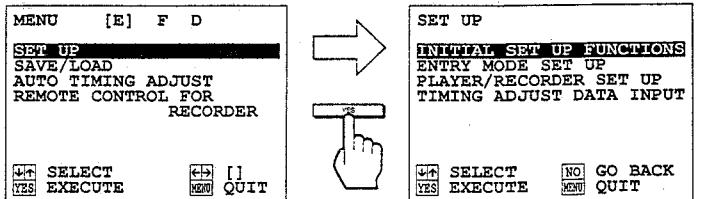
The main menu appears.



2

Press \uparrow , \downarrow until the item for setting or adjusting the options appears, and press YES.

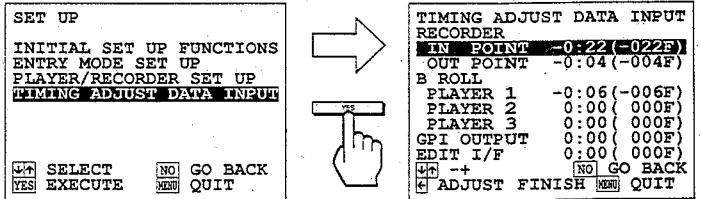
The menu of the selected item appears.



3

Press \uparrow , \downarrow to select the item for adjusting the timing manually, and press YES.

The menu of the selected item appears.



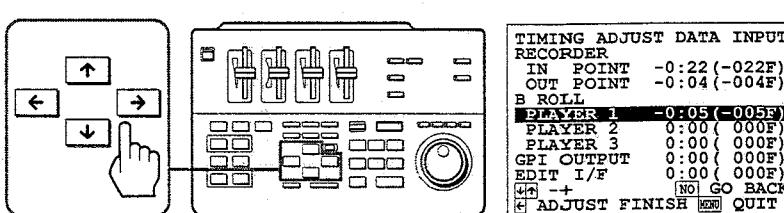
4

Press \uparrow , \downarrow to select the player for which you want to revise the adjustment value, and then press \rightarrow .

To compensate for the recorder, GPI and EDIT I/F timing, select each item in this step.

5

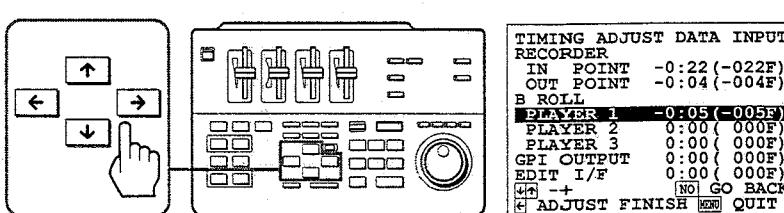
Press \uparrow , \downarrow and change the adjustment value.



6

Press MENU.

The menu disappears.

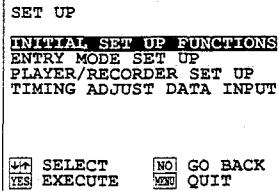
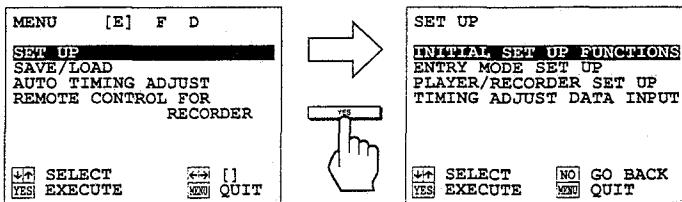


Optional Settings

You can reset the performance of the unit to your preference.

Setting the Options

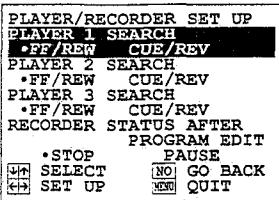
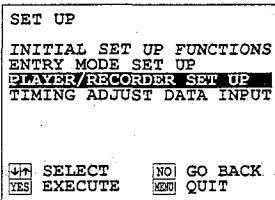
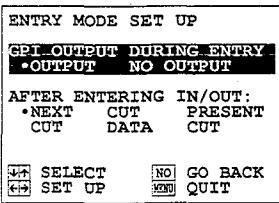
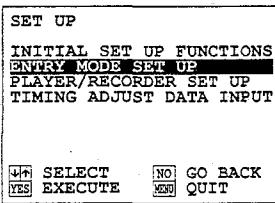
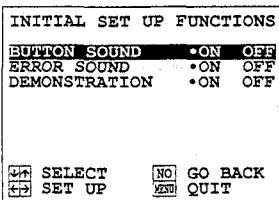
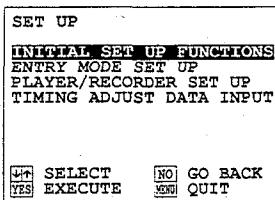
1 Select the item for setting or adjusting the options in the menu.



2 Press \uparrow , \downarrow to select the item for optional setting of:

- Button sound, beeps, demonstration (INITIAL SET UP FUNCTIONS)
- how the unit should act while designating cuts (ENTRY MODE SET UP)
- how to transport the tape while executing the program editing (PLAYER/RECORDER SET UP).

See the next page for description of each option.



3 Press \uparrow , \downarrow to select the item you want to reset, and \leftarrow , \rightarrow to select the setting.

4 When you have finished, press MENU.
The menu disappears.

Optional Settings

Description of Options

INITIAL SET UP FUNCTIONS

Menu display	Setting	Description
BUTTON SOUND	ON	A beep sounds when you press a button.
	OFF	No beep sounds.
ERROR SOUND	ON	Beeps sound to warn against wrong operation.
	OFF	No warning beeps sound.
DEMONSTRATION	ON	Demonstration appears when the power is turned on.
	OFF	No demonstration appears.

ENTRY MODE SET UP

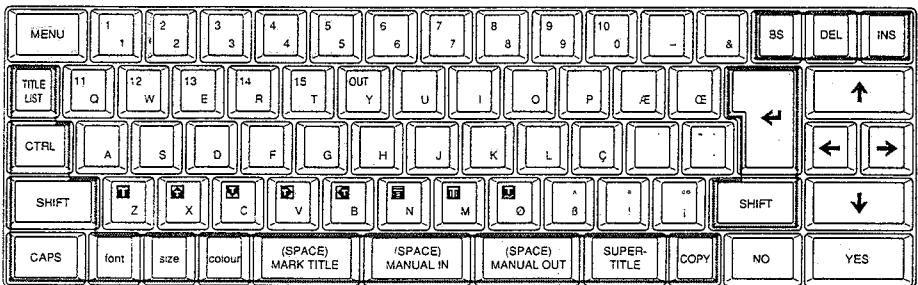
Menu display	Setting	Description
GPI OUTPUT DURING ENTRY	OUTPUT	During designation of the IN and OUT points on the entry mode display, the unit sends the GPI signal to the connected equipment when you press GPI.
	NO OUTPUT	The unit does not send the GPI signal during designation of the IN and OUT points. It sends the GPI signal during program editing instead.
AFTER ENTERING IN/OUT:	NEXT CUT	After the OUT point is set, the entry mode display to set the next IN point appears automatically. (The cut number increases.)
	CUT DATA	After each cut is set, the cut data display appears.
	PRESENT CUT	The cut number does not change. To change the cut number, press \uparrow , \downarrow .

PLAYER/RECORDER SET UP

Menu display	Setting	Description
PLAYER 1/2/3 SEARCH	FF/REW	Locates a scene by fast-forwarding or rewinding. You can set this player by player.
	CUE/REV	Locates a scene by fast-forward playback or reverse playback. You can set this player by player. Note If the interval between the cuts is too long, the recorder may release recording pause mode. In this case, change to fast-forward/rewind.
RECORDER STATUS AFTER PROGRAM EDIT	STOP	Sets the recorder to stop mode after program editing.
	PAUSE	Sets the recorder to pause mode.

Superimposing Titles

You can make titles using the keyboard and superimpose them in the program.



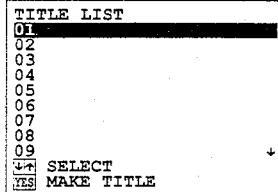
Making Titles

Use the buttons with white letters or marks.

1

Press TITLE LIST.

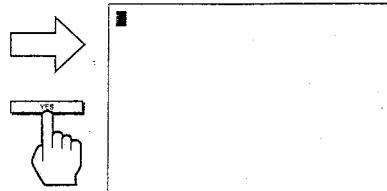
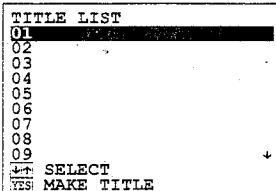
The title number list appears.



2

Press \uparrow , \downarrow to select a title number, and press YES.

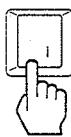
A blank screen appears.



3

Type in characters or a symbol.

See the next page for details.



SKI

4

When the title is completed, press TITLE LIST again.

The title is stored in the unit and the entry mode display appears.

To make other titles, repeat from step 1. Select a different title number in step 2.

Superimposing Titles

To Type In Characters

Move the cursor to the desired position on the screen with the arrow buttons and press the character buttons. To place a blank space, press (SPACE).

You can type in characters up to 24 characters per line and up to 12 lines per page.

To move the cursor to the next line, press **←**.

To erase the character you just typed in, press BS (back space).

To delete a character, move the cursor to the character you want to delete and press DEL.

To delete a line, move the cursor to the line you want to delete, press SHIFT and DEL at the same time.

To insert the characters,

1 Move the cursor to where you want to insert, and press INS.

A blank space is inserted.

2 Press INS repeatedly to insert enough spaces for the characters you want to insert.

If you want to overwrite, you do not need to insert spaces.

3 Type in characters.

To insert a line, move the cursor to where you want to insert, press SHIFT and INS at the same time.

To change the color, press "colour".

8 kinds of color are available. Each time you press "colour", the color changes.

Note on font, size and color

You can select only one kind of font, size or color per line.

To use a factory preset title, press SUPER-TITLE.

Each time you press SUPER-TITLE, the factory preset title changes.

To position the title, while pressing CTRL, press **↑, ↓, ←, →** of the desired direction.

To change the line position, move the cursor to the line, then while pressing SHIFT, press **↑, ↓** until the line comes to the desired position.

How many titles can be stored?

You can make up to 5 titles per cut and store up to 15 titles per program.

To check the titles

Press TITLE LIST.

The list of stored titles appears.

Press again to make the title list disappear.

Notes

- If there is a character at 24th character position, you cannot insert characters.
- If there is a line at 12th line position, you cannot insert a line.

To type in upper case (capital letters), press SHIFT and the character button at the same time. If you type in all capital letters, press CAPS. Press it again to release CAPS.

To type in European letters such as "å" for example, while pressing CTRL, press "!", then press "a". The CTRL button lets you select the character/mark on the upper right indication of the button.

To change the font, press "font".

3 kinds of font are available. Each time you press "font", the font changes.

To change the size, press "size".

4 kinds of size are available. Each time you press "size", the size changes.

Note on large characters

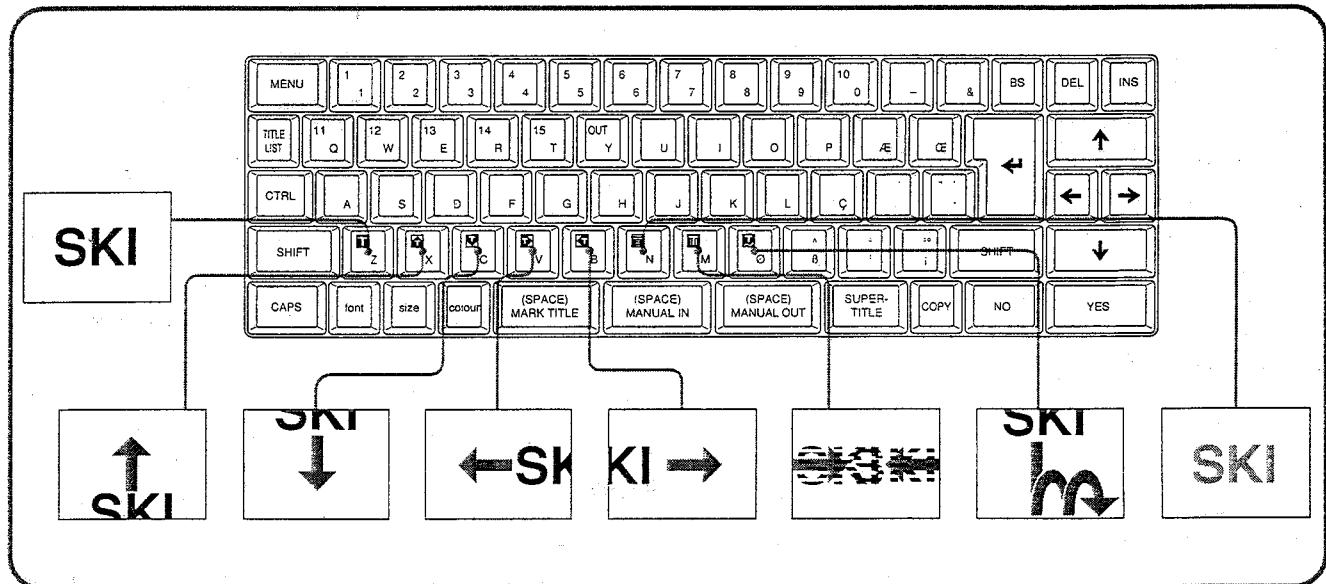
When you use large characters for a title, a parts of the title cannot fit in the screen. They, however, exists out of the screen and will appear when you superimpose the title.

Superimposing the Titles

You can superimpose the titles in the entry mode display or in the cut data display.

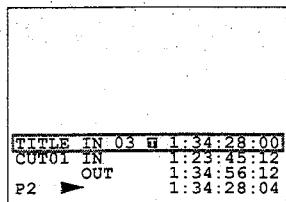
Use the buttons with yellow letters or marks to superimpose the titles.

You can superimpose the titles with effect such as scroll.



In the entry mode display

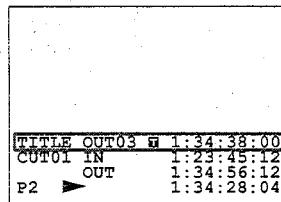
To superimpose the title



- 1 Press the title number key (1 to 15) on the keyboard.
- 2 Press the desired superimpose button.
- 3 Press MARK TITLE at the desired scene.
- 4 Press YES. The title indication disappears.

If you do not want to superimpose the title, press NO.

To turn off the title

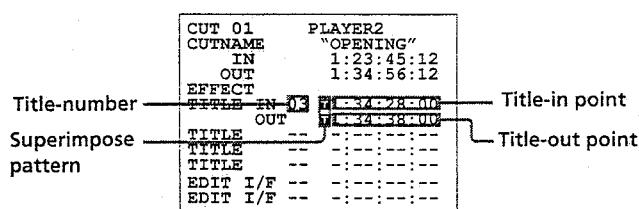


- 1 Press OUT.
- 2 Press the desired superimpose button.
- 3 Press MARK TITLE at the desired scene.
- 4 Press YES. The title indication disappears.

If you do not want to turn off the title, press NO.

In the cut data

Set the TITLE option using \uparrow , \downarrow , \leftarrow , \rightarrow .



Superimposing titles directly

You can superimpose a title during designating cuts or executing the program editing.

To superimpose the title

- 1 Press the title number key.
- 2 Select the desired superimpose button.
- 3 Press MANUAL IN when you want to superimpose the title.

To turn off the title

- 1 Press the desired superimpose button.
- 2 Press MANUAL OUT when you want to turn off the title.

Saving/Loading the Program in the Disk

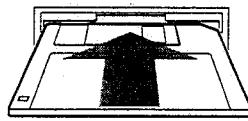
You can save program data including the titles in a Sony 3.5-inch floppy disk (2HD or 2DD) to load the data back to the unit to execute program editing.

Saving the Program

You can save 1 program data in 1 disk.

1

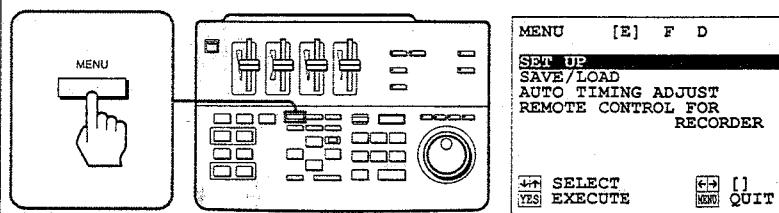
When you have made a program, insert a disk in the floppy disk drive of the main unit.



2

Press MENU.

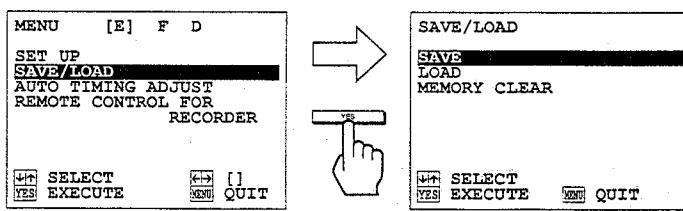
The main menu appears.



3

Press \uparrow , \downarrow to select the item to save or load a program, and press YES.

The menu of the selected item appears.



4

As the item to save a program is selected, press YES.

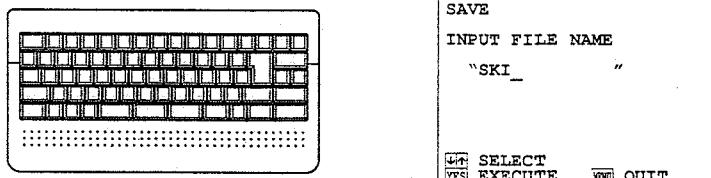
The message to confirm that the program should be saved appears. Press YES again.

If the disk has a program saved, the file name is displayed. Press YES to rewrite the disk. Press NO to cancel. The display to input the file name appears.

5

Type in the file name for the program using the keyboard.

You can use up to 12 characters.



6

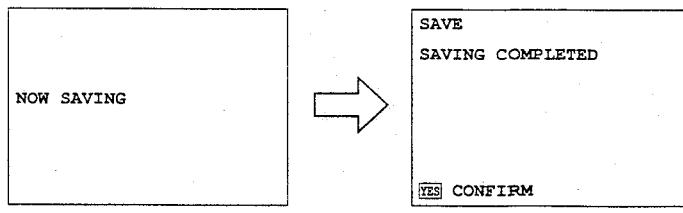
Press YES.

The unit formats the disk automatically and saves the program in the disk. It takes about 20 to 30 seconds.

If you do not want to save the program, press NO.

[a] Appears during saving

[b] Appears when saving is completed.



7

When the saving is completed, press YES.

The entry mode display appears.

To Clear the Program Data from the Unit

Select "CLEAR" in the SAVE/LOAD menu. See page 39 for details

Loading the Program Data from the Disk

1

Insert the disk in the floppy disk drive of the main unit.

2

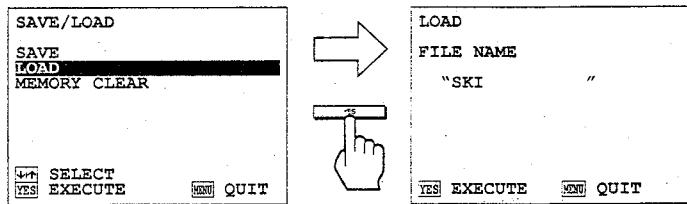
Make the "SAVE/LOAD" display appear.

Perform steps 2 and 3 of "Saving the Program".

3

Press ↓ to select the item to load the data and press YES.

The file name of the program will be displayed.



4

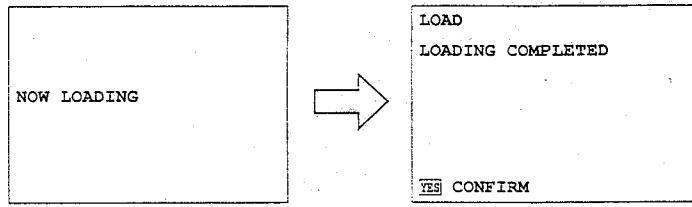
Press YES again.

The unit loads the program data. It takes about 5 to 10 seconds.

If you do not want to load the program, press NO.

[a] Appears during loading

[b] Appears when loading is completed.



5

Press YES again.

The entry mode display appears.

6

Insert the tapes in the same players as when you made the program. Execute program editing (page 32).

Controlling the Digital SEG

By connecting a Digital SEG having an EDIT I/F* or GPI* input jack, you can generate effects during editing.

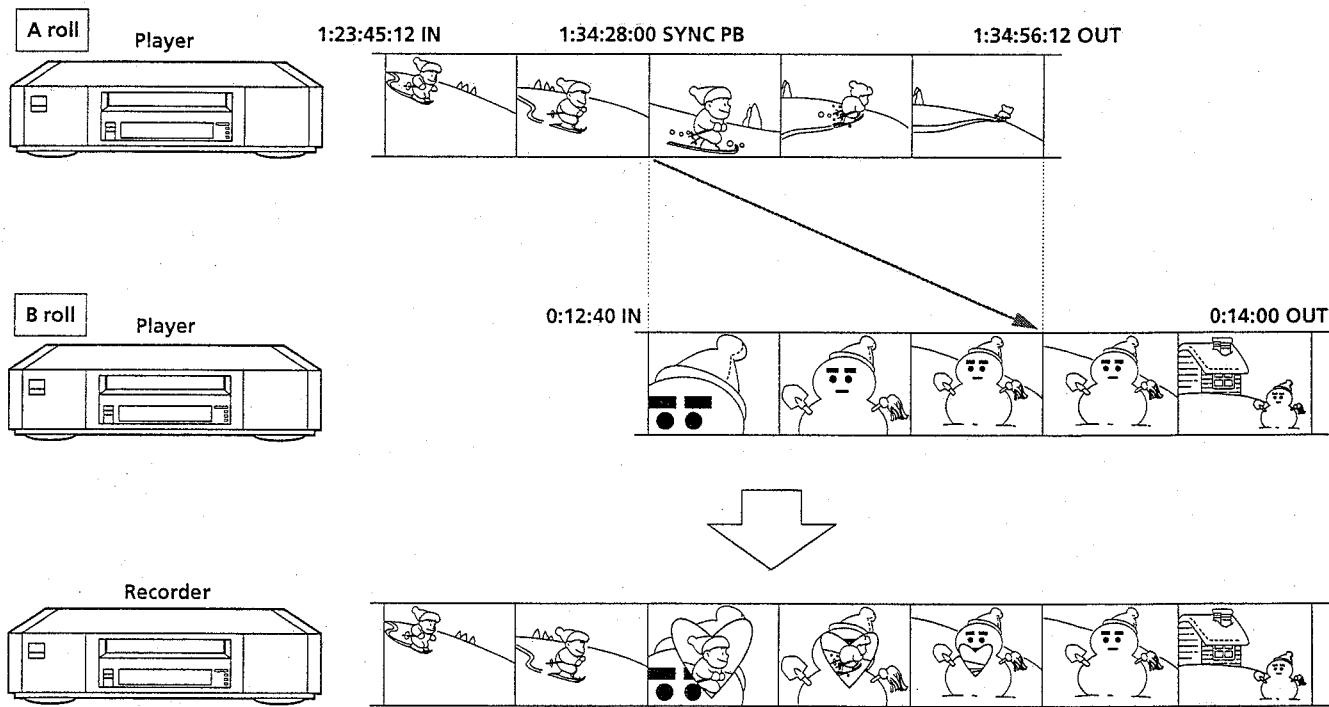
* EDIT I/F (Edit Interface) and GPI (General Purpose Interface) signals are control signals output from the video editing controller to control external equipment other than the video recorder/player.

A/B Roll Edit by EDIT I/F

A/B roll edit switches 2 pictures while generating special effects such as overlapping and wiping. For A/B roll editing, you need 2 players, 1 recorder, and a Digital SEG having an EDIT I/F jack.

Note

This unit is unable to edit by ± 0 frame accuracy.



You need to decide the following items for the A/B roll edit.

- A roll cut
Cut to be played back before switching.
Set the OUT point of the cut with extra seconds for switching scenes.
- B roll cut
Cut to be played back after switching.
Designate the cut of a different player from that of A roll cut.
- SYNC PB point
Point to start B roll playback.
When the A roll comes to the SYNC PB point, the B roll start playback.
- Special effect to switch the pictures
Set the special effect on the Digital SEG.
- EDIT I/F point
Point to start switching
The unit transmits the EDIT I/F or GPI signal. In the above example, the EDIT I/F or GPI point is same as the SYNC PB point.

You can easily set these items on this unit, and execute the program edit with the A/B roll.

On the setting

- During A/B roll editing, the A roll cut is output from the PROCESSOR OUT 1 and the B roll cut from the PROCESSOR OUT 2. (The first cut played back is the A roll cut.)
- Make the program memory to switch from INPUT 1 to INPUT 2 on the Digital SEG.

Notes

- If you use a player with a 4-digit counter, there will be a time lag.
- Make sure that you select separate players for the A roll and B roll.
- You cannot perform an A/B roll edit of more than 2 cuts continuously.
- The video/audio signal of the player selected when you pressed PROCESSOR ON/OFF to turn it on is output from PROCESSOR OUT 2 during setting.
- If the unit cannot execute the A/B roll edit because of an error in the A roll cut, the unit displays the message to indicate the cause.

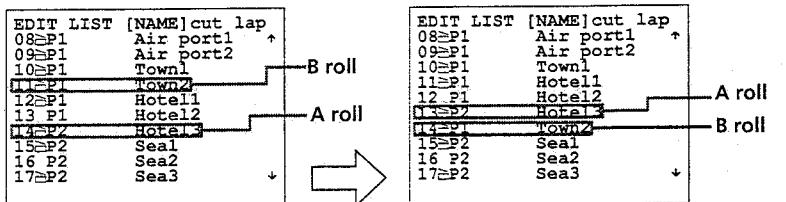
" SYNC" appears on the edit list.

Setting the A/B Roll Edit in the Program

Connect the unit and the Digital SEG as shown on page 23.

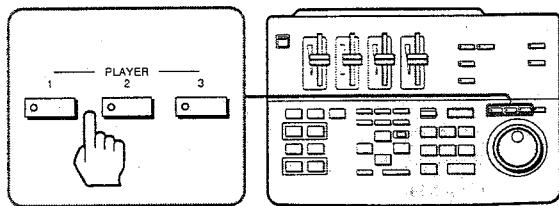
1

On the edit list, move the B roll cut next to the A roll cut (p. 38).



2

Select the player of the B roll cut.



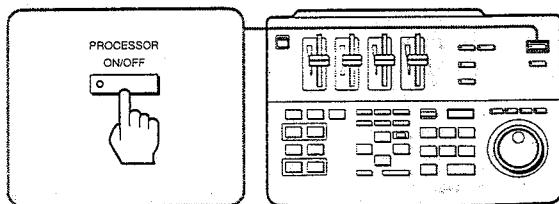
3

Press PROCESSOR ON/OFF to turn it on.

If the button is lit, turn it off once.

Then turn it on again.

The video/audio signal of B roll player is input to the INPUT 2 jack of the Digital SEG.

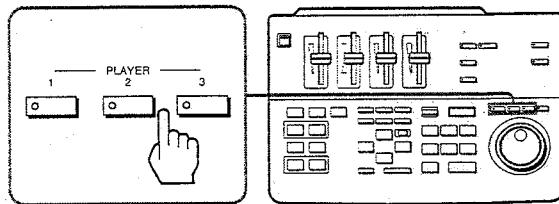


4

Select the player of the A roll cut.

Select a player other than the one selected in step 2.

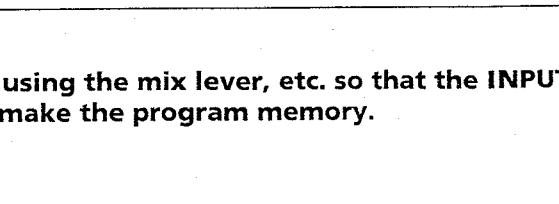
When you select a player on this unit afterward, the signal to the INPUT 1 jack of the Digital SEG switches. The signal to the INPUT 2 remains same as that of the player you selected in step 2.



5

On the Digital SEG, switch the pictures using the mix lever, etc. so that the INPUT 1 picture of the Digital SEG appears and make the program memory.

See the operating instructions of the Digital SEG for making the program memory.



6

On the Digital SEG, switch the pictures using the mix lever, etc. so that the INPUT 2 picture of the Digital SEG appears and make the program memory.

Also set the switching speed and effect here.

Select a number other than the one used in step 5.

Continued to the next page

Controlling the Digital SEG

7

In the A roll picture, locate the point to switch to the B roll picture.

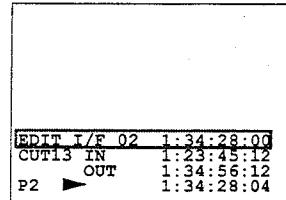
(1) Recall the program memory of the Digital SEG made in step 5.

(2) Start playback on the A roll player, locate the scene to switch the pictures and set to pause mode.

8

Make the entry mode display of the A roll player appear, recall the program memory of the Digital SEG made in step 6 and press EDIT I/F.

The recalled memory number and EDIT I/F point are displayed.

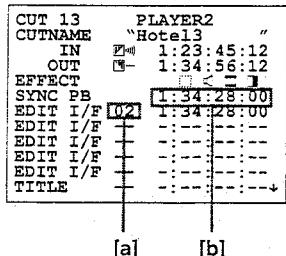


9

Press CUT DATA to make the cut data display of the A roll cut appear, and set the SYNC PB point, which should be the same counter reading as that of the EDIT I/F point set in step 8.

[a] Program memory number set in step 6.

[b] SYNC PB point



[a] [b]

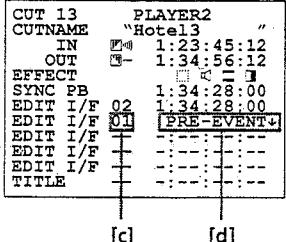
10

Set the memory number made in step 5 to the blank item of EDIT I/F, and set the counter reading to "PRE-EVENT" by keeping ↑ pressed.

The INPUT 1 signal needs to be selected before switching. Make the program memory to output the INPUT 1 signal on the Digital SEG and set it to PRE-EVENT. PRE-EVENT is the status before the cut is played back.

[c] Program memory number set in step 5.

[d] Set to PRE-EVENT.

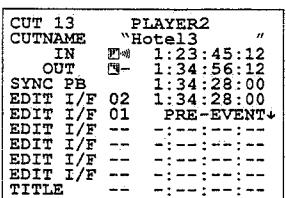


[c] [d]

Executing the A/B Roll Edit

Press EDIT START to execute the edit.

If you preview the A/B roll edit, press 1 CUT PREVIEW at the A roll cut.



Notes

- The number of EDIT I/F settings in a program is limited to the number of program memories available on the Digital SEG. (This unit can display up to 15.)
- This unit can control only 1 Digital SEG via the EDIT I/F jack.

A/B Roll Edit by GPI

Setting the A/B Roll Edit in the Program

Connect the unit and the Digital SEG as shown on page 23.

1 – 4

Perform in the same way as steps 1 to 4 on page 59.

5

On the Digital SEG:

- to perform wipe or mixing only
Make the setting to switch from the INPUT 1 picture to the INPUT 2 picture.
- to recall the program memories in sequence
(1) Make the program memory so that the INPUT 1 picture appears.
(2) Switch the picture and make the next program memory so that the INPUT 2 picture appears.

6

In the A roll picture, locate the point to switch to the B roll picture.

- (1) Make the INPUT 1 picture of the Digital SEG appear.
- (2) Start playback on the A roll player, locate the scene to switch the pictures and set to pause mode.

7

Make the entry mode display of the A roll player appear, and press GPI.

G.P.I	
CUT13	1:34:28:00
IN	1:23:45:12
OUT	1:34:56:12
P2	1:34:28:04

8

Press CUT DATA to make the cut data display of the A roll cut appear, and set the SYNC PB point, which should be the same counter reading as that of the GPI point.

CUT 13	
CUTNAME	PLAYER2
IN	"Hotel3"
OUT	"
EFFECT	[]
SYNC PB	1:34:28:00
EDIT I/F	--
edit i/f	[GPI] 1:34:28:00
EDIT I/F	--
EDIT I/F	--
EDIT I/F	--
TITLE	--

9

Make the cut data display of the cut next to the A/B roll appear, and set the counter reading to "PRE-EVENT" by keeping ↑ pressed.

The INPUT 1 signal needs to be selected before switching.
Make the program memory to output the INPUT 1 signal on the Digital SEG and set it to PRE-EVENT. PRE-EVENT is the status before the cut is played back.

[a] A roll cut

[b] B roll cut

EDIT LIST [NAME]cut lap	
08>P1	Air port1
09>P1	Air port2
10>P1	Town1
11>P1	Hotel1
12 P1	Hotel2
13 P2	Hotel3
14 P1	Town2
15 P2	Seal
16 P2	Sea2
17 P2	Sea3

CUT 15	
CUTNAME	PLAYER2
IN	"Seal"
OUT	"
SYNC PB	1:40:34:00
edit i/f	[GPI] PRE-EVENT
EDIT I/F	--
TITLE	--

Controlling the Digital SEG

Executing the A/B Roll Edit

1

On the Digital SEG:

- To perform wipe or mixing only
Set the Digital SEG so that the INPUT 1 picture appears.
- To recall the program memories in sequence
Recall the first program memory containing the setting to output the INPUT 1 picture.

2

Press EDIT START to execute the edit.

If you preview the A/B roll edit, press 1 CUT PREVIEW at the A roll cut.

A/B and B/A Roll Edit

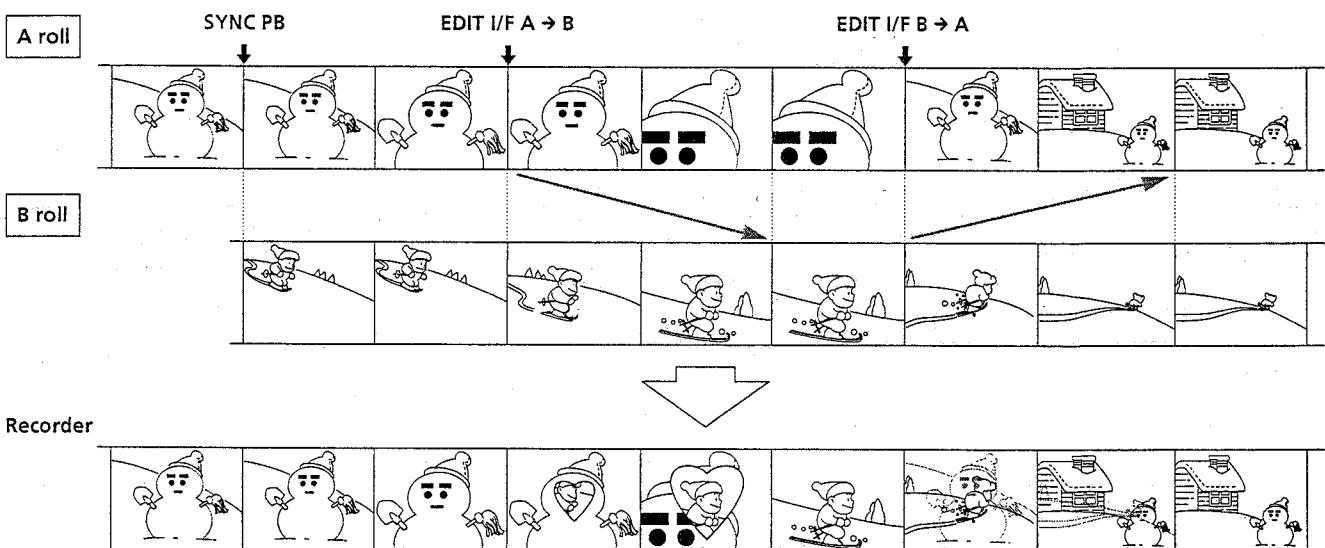
You can set up to 5 points of EDIT I/F and GPI in total in a cut.

By setting the long switching duration of the A roll and B roll, and recalling the program memory to output the A roll and the program memory to output the B roll alternately, you can switch the pictures in sequence.

This method is recommended to edit a video of long shots and one of close ups.

To execute the A/B and B/A roll, make the program memories on the Digital SEG.

- A/B roll Program memory to switch from INPUT 1 to INPUT 2
- B/A roll Program memory to switch from INPUT 2 to INPUT 1



Other Special Effects

When you recall the program memory of special effects, excluding switching pictures, you can record the cuts with mosaic and freeze effects.

Player

EDIT I/F

Recorder

For Your Information**Troubleshooting**

If you have a problem, go through this operating instructions and the following list. If the problem is not included in the list, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

Symptom	Cause and countermeasures
Even though you pressed POWER, the control unit is not turned on. (The lamp of the POWER switch does not light.)	<ul style="list-style-type: none"> • Connect the power cord. • Check the connection between the main unit and the control unit.
No playback picture appears.	<ul style="list-style-type: none"> • Turn on the power of the player. • If you use a video camera recorder for the player, set the input/output selector of the video/audio jacks to output. • The tape of the player is at the end. • If you use a video camera recorder for the player, set the POWER switch to VTR or PLAYER. • Turn on the monitor. • If PROCESSOR ON/OFF is lit, turn it off.
Wrong picture appears.	Select the player of the tape you want to playback with PLAYER 1/2/3 (p. 28).
You want to make the entry mode display disappear.	Press DISPLAY ON/OFF.
The entry mode display does not appear.	If DISPLAY ON/OFF is not lit, press it to turn it on.
The recorder's counter does not appear.	This unit does not indicate the recorder's counter. Check the counter on the recorder itself.
You cannot operate the recorder.	<ul style="list-style-type: none"> • Turn on the power of the recorder. • Press RECORDER. • No tape in the recorder. • Check the connection between the main unit and the recorder. • The command mode or control signal of the recorder is not set or stored correctly (p. 19, 20)
Program editing does not start.	<ul style="list-style-type: none"> • The recorder is not set to pause mode. Make sure that you set the recorder to recording pause mode to execute the program editing (p. 32) • No tape in the recorder. • The tape in the recorder is at the end. • The safety tab of the tape is set to prevent recording. • The tape of the recorder is rewound to the beginning. Program editing is not possible within 15 seconds from the beginning of the tape (about 15 counts for the 4-digit counter). • The remote sensors of the recorder and the player are in the same VTR mode, or the VTR mode switch of the recorder is set to the wrong mode. • If you use a video camera recorder for the recorder, set the POWER switch to VTR or PLAYER. • The operation system of the recorder is not set correctly (p. 16)
The picture is whitish or blackish. The sound volume is low.	The picture or sound is faded. When you do not want to fade the picture and sound, set the VIDEO FADER and AUDIO FADER levers to the MAX side.
You cannot operate the recorder with the infrared remote control signal.	<ul style="list-style-type: none"> • Check the IR repeater's connection or location (p. 15). • The VTR mode is not set correctly (p. 18).

Troubleshooting

Error Messages

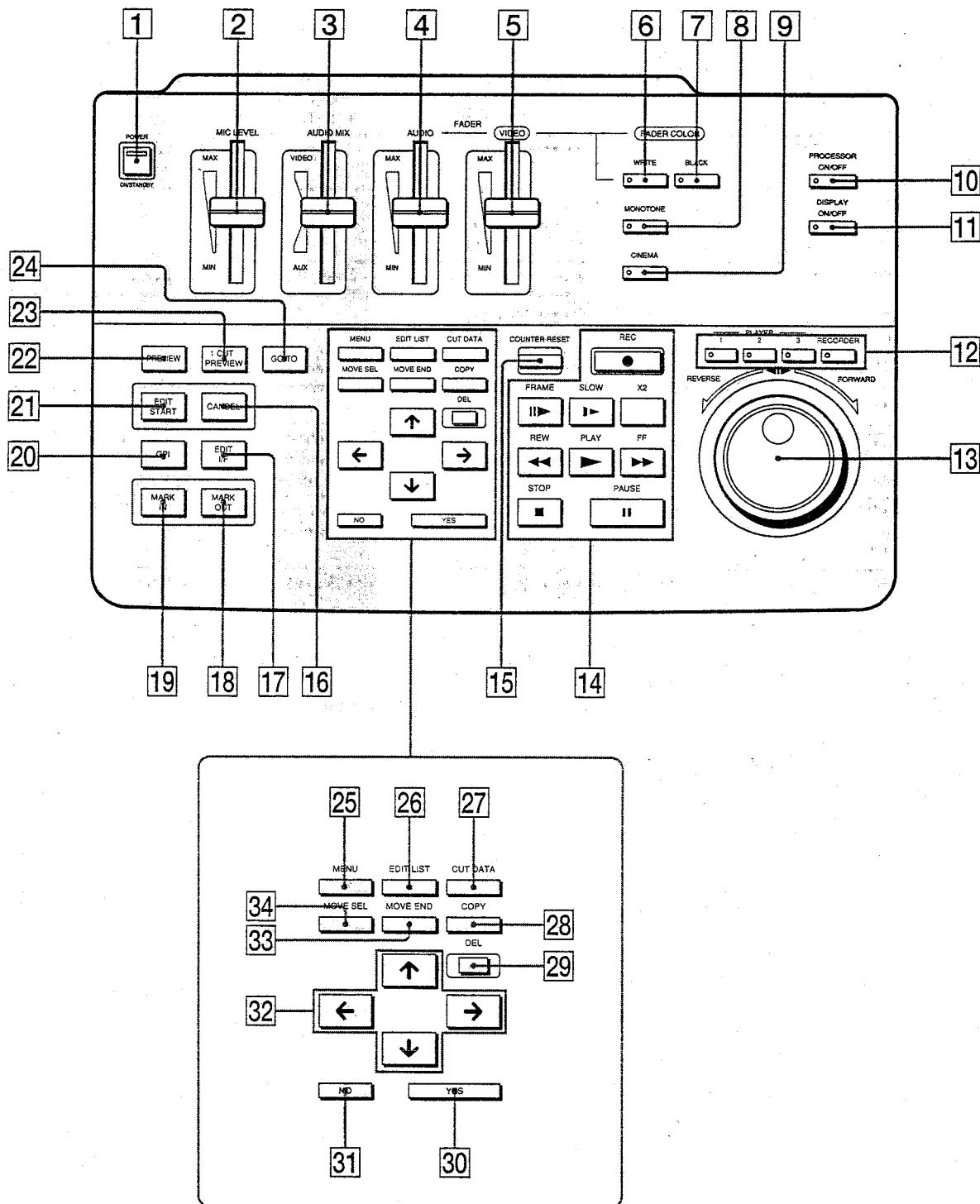
Error number	Message	Cause	Countermeasures
11	BACK UP BATTERY LOW	The back up battery is weak.	Replace with a new Sony CR2025 lithium battery (p. 6). To turn off the message, press YES.
12	HAVE YOU INSERTED THE BACK UP BATTERY?	<ul style="list-style-type: none"> The back up battery is not installed. The back up battery is exhausted and no program data is kept. 	<ul style="list-style-type: none"> Install a new Sony CR2025 lithium battery (p.6). This message appears when you turn on the power at the first time after you have replaced the lithium battery. In this case, you do not need to replace the battery. To turn off the message, press YES.
21	NO RESPONSE FROM VTR PLAYER 1 (PLAYER 2, PLAYER 3, RECORDER)	The unit stops program editing as the indicated video equipment does not operate.	Check the connection of the video equipment, or the tape in it. To turn off the message, press YES.
22	LANC CONNECTION ERROR PLAYER 1 (PLAYER 2, PLAYER 3, RECORDER)	The unit stops program editing as the indicated video equipment stopped.	Check the status of the video equipment. To turn off the message, press YES.
23	CANNOT READ COUNTER/TC PLAYER 1 (PLAYER 2, PLAYER 3, RECORDER)	The unit cannot read the counter of the indicated video equipment.	Check the connection of the video equipment, or the tape in it. To turn off the message, press YES.
31	INCOMPATIBLE COUNTER/TC PLAYER 1 (PLAYER 2, PLAYER 3)	The unit stops program editing as the indicated player's counter is different from that of the program.	Change the counter to that of the program (p. 26, 27). To turn off the message, press YES.
32	COUNTER/TC TYPE NOT CONSISTENT PLAYER 1 (PLAYER 2, PLAYER 3)	There are different counters in the program.	Change the counter of the player and revise the program. To turn off the message, press YES.
33	CANNOT GO TO	You pressed GO TO in a blank item.	Select the item with the setting and press GO TO. To turn off the message, press YES.
41	LANC CONNECTION ERROR PLAYER 1 (PLAYER 2, PLAYER 3, RECORDER)	The unit stops program editing as it cannot control the indicated video equipment.	<ul style="list-style-type: none"> Check the connection. Turn on the power of the indicated video equipment. Set the recorder control system (p. 16). To turn off the message, press YES.
42	EDIT I/F CONNECTION ERROR	<ul style="list-style-type: none"> The EDIT I/F connection is not made. You operate the connected equipment incorrectly. 	<ul style="list-style-type: none"> Check the EDIT I/F connection. Press EDIT I/F after you recalled the program memory. Set the program memory number stored. To turn off the message, press YES.
51	CAUTION OVER 20 CUTS PLAYER 1 (PLAYER 2, PLAYER 3)	More than 20 cuts are designated from the indicated player. The editing accuracy will deteriorate.	<ul style="list-style-type: none"> If there are unnecessary cuts, delete them (p. 39). Turn off the <input checked="" type="checkbox"/> mark (p. 37). To continue editing, press YES. To cancel editing, press CANCEL.
52	CANNOT COPY	You cannot copy the cut as the 99th cut position is occupied.	Move or delete the 99th cut (p. 38, 39). To turn off the message, press YES.

Error number	Message	Cause	Countermeasures
53	GPI, EDIT I/F UP TO 5POINTS PER CUT	More than 5 point of GPI or EDIT I/F are designated.	Delete unnecessary designation. To turn off the message, press YES.
54	TITLE IN/OUT UP TO 5POINTS PER CUT	More than 5 points of TITLE IN and OUT points in total are designated.	Delete unnecessary designation. To turn off the message, press YES.
71	REMOTE CONTROL MEMORY FULL	There is not enough memory for learning the commander.	<ul style="list-style-type: none"> • To learn again from the beginning, press YES (p. 20). • To finish learning by that time, press NO.
72	LEARNING ERROR	The unit failed learning the commander.	<ul style="list-style-type: none"> Try again from the beginning (p. 20). To turn off the message, press YES.
81	SYNC PB ERROR CUT xx IN (OUT) x:xx:xx:xx	The SYNC PB is not possible with the indicated cut as another player is not prepared.	Prepare another player.
82	SYNC PB ERROR CUT xx IN (OUT) x:xx:xx:xx	The SYNC PB is not possible with the indicated cut as the SYNC PB point is designated out of IN and OUT point of the cut.	<ul style="list-style-type: none"> Designate the SYNC PB point inside the cut. To turn off the message, press YES.
83	SYNC PB ERROR CUT xx IN (OUT) x:xx:xx:xx	The SYNC PB is not possible with the indicated cut as two SYNC PB points are designated continuously.	<ul style="list-style-type: none"> Delete one of them. To turn off the message, press YES.
84	SYNC PB ERROR CUT xx IN (OUT) x:xx:xx:xx	The SYNC PB is not possible with the indicated cut as the cuts for SYNC PB are of the same player.	<ul style="list-style-type: none"> Select a cut of different player and move it next to the cut which contains the SYNC PB point. To turn off the message, press YES.
85	SYNC PB ERROR CUT xx IN (OUT) x:xx:xx:xx	The SYNC PB is not possible with the indicated cut as the cut is 99th cut.	<ul style="list-style-type: none"> Select other than 99th cut for SYNC PB. To turn off the message, press YES.
90	NO DISK	No disk is inserted.	<ul style="list-style-type: none"> • To continue, press NO to return to the previous display, and insert a disk. • To stop, press YES.
91	DISK IS WRITE-PROTECT. SWITCH OFF WRITE- PROTECT OR USE ANOTHER DISK	The program cannot be saved in the disk as the disk is write-protected.	<ul style="list-style-type: none"> • To continue, press NO to return to the previous display and release the write-protect or use another disk. • To stop, press YES.
92	COULD NOT WRITE DISK	The program cannot be saved in the disk due to the problem in the disk.	<ul style="list-style-type: none"> • To continue, press NO to return to the previous display and change the disk. • To stop, press YES.
93	READ ERROR CANNOT READ DISK	<ul style="list-style-type: none"> • The disk is not the one you saved the program on this unit. • The program data is destroyed. 	<ul style="list-style-type: none"> • To continue, press NO to return to the previous display, and use the disk you saved. • To stop, press YES.
94	CANNOT READ PART OF DISK	A part of the program data is destroyed.	<ul style="list-style-type: none"> • To continue loading, press YES. The destroyed part is skipped. • To stop, press NO.

Parts Identification

For the use of each control, see the pages indicated in the parentheses.

Control Unit



1 POWER ON/STANDBY switch (p. 17, 27)	21 EDIT START button (p. 32)
2 MIC (microphone) LEVEL lever (p. 44)	22 PREVIEW button (p. 31)
3 AUDIO MIX lever (p. 44)	23 1 CUT PREVIEW button (p. 31)
4 AUDIO FADER lever (p. 43)	24 GO TO button (p. 37, 41)
5 VIDEO FADER lever (p. 43)	25 MENU button (P. 17, 46, 51, 57)
6 WHITE button (p. 43)	26 EDIT LIST button (p. 37)
7 BLACK button (p. 43)	27 CUT DATA button (p. 35, 36, 42)
8 MONOTONE button (p. 41)	28 COPY button (p. 38)
9 CINEMA button (p. 41)	29 DEL (delete) button (p. 39)
10 PROCESSOR ON/OFF button (p. 59)	30 YES button (p. 17, 37, 46, 51, 57)
11 DISPLAY ON/OFF button (p. 27)	31 NO button (p. 37)
12 PLAYER 1/2/3 RECORDER select buttons (p. 28, 32)	32 Arrow buttons
13 Jog/shuttle dial (p. 30)	33 MOVE END button (p. 38)
14 Tape transport buttons (p. 30)	34 MOVE SEL (select) button (p. 38)

REC ● : Recording

FRAME ▶ : Frame-by-frame playback

SLOW ▶ : Slow (1/5 speed) playback

×2 : Double-speed playback

REW ◀◀ : Rewind

PLAY ▶ : Playback

FF ▶▶ : Fast-forward

STOP ■ : Stop

PAUSE ▶ : Pause

15 COUNTER RESET button (p. 29)

16 CANCEL button (p. 31, 32)

17 EDIT I/F button (p. 60)

18 MARK OUT button (p. 29)

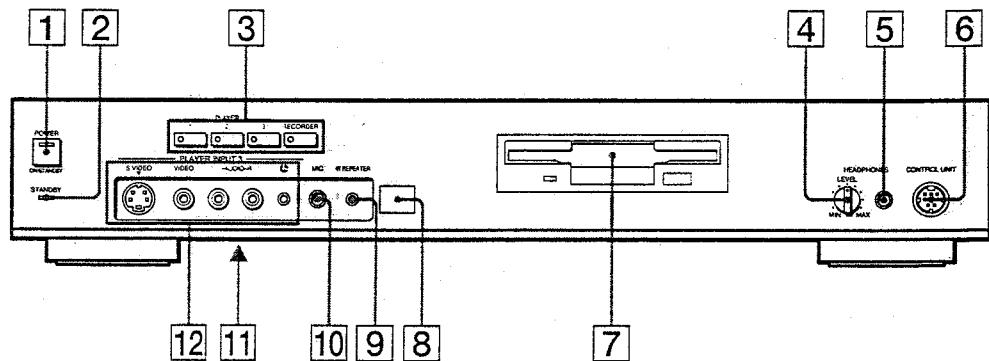
19 MARK IN button (p. 28)

20 GPI button (p. 61)

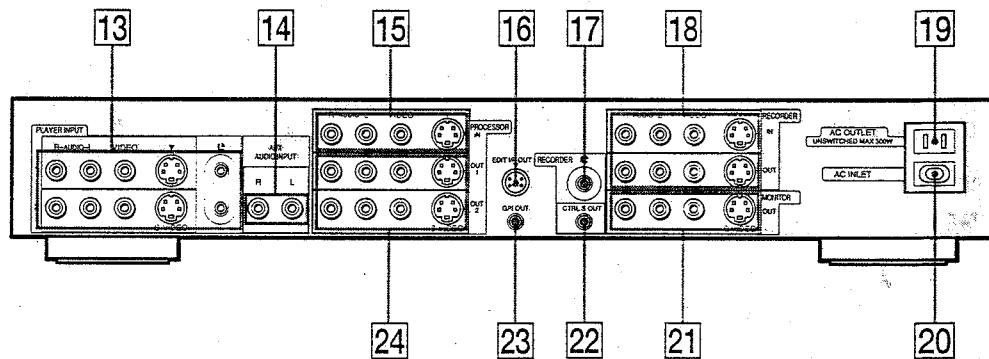
Parts Identification

Main Unit

Front panel



Rear panel



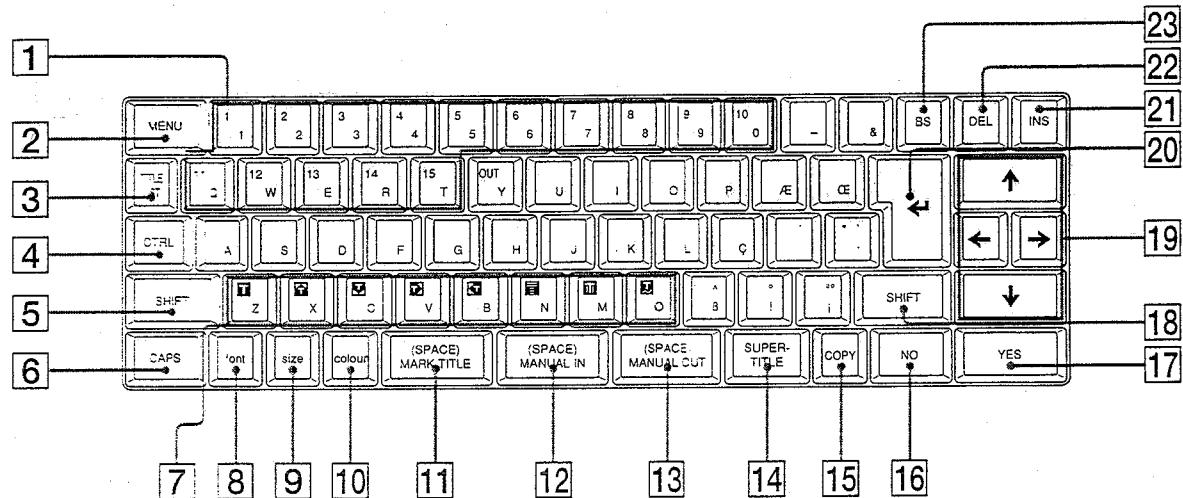
- 1 POWER ON/STANDBY switch (p.33)
- 2 Standby lamp
- 3 PLAYER/RECORDER select buttons (p.33)
- 4 HEADPHONES LEVEL control
- 5 HEADPHONES jack

Connect the headphones (not supplied).

- 6 CONTROL UNIT connector (p.11)
- 7 Floppy disk drive (p. 56)
- 8 Remote sensor (p.20)
- 9 IR REPEATER connector (p.15)
- 10 MIC (microphone) jack (p. 24)
- 11 Lithium battery compartment (bottom) (p. 6)
- 12 PLAYER INPUT 3 jacks (p. 10)
- 13 INPUT 1/2 jacks (p. 9)

- 14 AUX (auxiliary) AUDIO INPUT jack (p. 24)
- 15 PROCESSOR IN (input) jacks (p. 23)
- 16 EDIT I/F OUTPUT jack (p. 23)
- 17 RECORDER LANC connector (p. 13, 14, 15)
- 18 RECORDER IN/OUT (input/output) connectors (p. 13, 14, 15)
- 19 AC OUTLET (UNSWITCHED MAX 300W) connector (for the USA and Canadian models only)
Auxiliary AC power connector max. 300 W
The power of the equipment connected to this connector is not turned on or off by the POWER switch of this unit.
- 20 AC INLET connector (p. 10)
- 21 MONITOR OUT (output) jacks (p. 10)
- 22 CTRL (control) S OUT (output) jack (p. 14)
- 23 GPI OUT (output) jack (p. 23)
- 24 PROCESSOR OUT (output) 1, 2 jacks (p. 23)

Keyboard



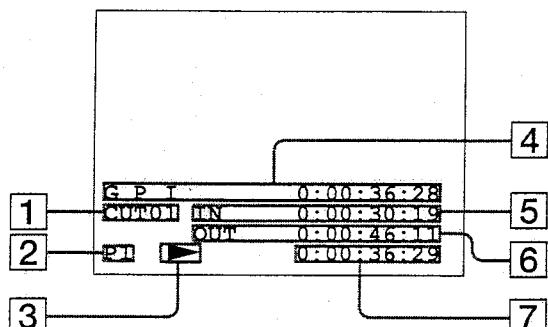
- 1** Title number buttons (1 to 15, OUT) (p. 55)
- 2** MENU button (p. 17, 46, 51, 57)
- 3** TITLE LIST button (p. 54)
- 4** CTRL (control) button (p. 54)
- 5** SHIFT button (p. 54)
- 6** CAPS button (p. 54)
- 7** Wipe effect buttons (p. 55)
- 8** "font" button (p. 54)
- 9** "size" button (p. 54)
- 10** "colour" button (p. 54)
- 11** MARK TITLE (SPACE) button (p. 54)

- 12** MANUAL IN (SPACE) button (p. 54, 55)
- 13** MANUAL OUT (SPACE) button (p. 54, 55)
- 14** SUPER-TITLE button (p. 54)
- 15** COPY button (p. 54)
- 16** NO button (p. 55)
- 17** YES button (p. 55)
- 18** SHIFT button (p. 54)
- 19** Arrow buttons (p. 54)
- 20** Return button (p. 54)
- 21** INS (insert) button (p. 54)
- 22** DEL (delete) button (p. 54)
- 23** BS (back space) button (p. 54)

Parts Identification

Entry Mode Display

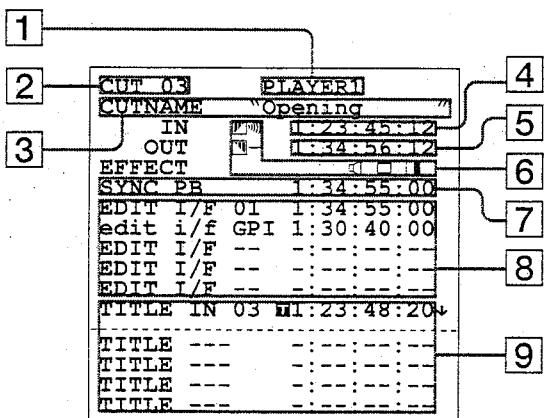
Turn on the power and press YES to display this.



- 1 Cut number
- 2 Player number (The number indicates the 1, 2 or 3 of PLAYER INPUT jacks.)
- 3 Tape transport mode of the player
- 4 TITLE, EDIT I/F or GPI counter (Appears when you press TITLE, EDIT I/F or GPI, see p. 55, 60, 61).
- 5 IN point counter (or time code)
- 6 OUT point counter (or time code)
- 7 Current counter of the player

Cut Data Display

After selecting the cut number on the entry mode display, press CUT DATA to display this.



- 1 Player number (The number indicates the 1, 2, or 3 of PLAYER INPUT jacks.)
- 2 Cut number
- 3 Cut name
- 4 IN point counter
- 5 OUT point counter
- 6 Video/audio effect icon (p. 41)
- 7 Synchronized playback point (p. 60)
- 8 You can look at the following items by scrolling with **↑**, **↓**.
EDIT I/F or GPI points (p. 60, 61)
- 9 TITLE IN/OUT points (p. 55)

Edit List

Press EDIT LIST on the entry mode display to display this.

IN point list

1	2	3
EDIT LIST name [CUT] lap		
09 P1 0:13:32:16		
10 P1 0:16:06:27		
11 P1 0:17:31:19		
12 P1 0:15:30:20		
13 P1 0:17:31:19		
14 P2 0:05:21:14		
15 P2 0:24:54:23		
16 P2 0:25:33:03		
17 P2 0:05:15:19		
18 P2 0:13:46:00		

- ① Cut number
- ② Player number
- ③ IN point

Cut name list

4	5	6
EDIT LIST [NAME] cut lap		
09 P1 Air port1		
09 P1 Air port2		
10 P1 Town1		
11 P1 Town2		
12 P1 Hotel1		
13 P1 Hotel2		
14 P2 Hotel13		
15 P2 Seal1		
16 P2 Seal2		
17 P2 Seal3		

- ④ Cut number
- ⑤ Player number
- ⑥ Cut name

Lap time list

7	8	9	10
EDIT LIST name cut [LAP]			
09 P1 0:01:44:21			
10 P1 0:01:27:18			
11 P1 0:00:02:26			
12 P1 0:02:02:26			
13 P1 0:00:02:26			
14 P2 0:00:29:15			
15 P2 0:00:31:29			
16 P2 0:00:19:07			
17 P2 0:00:01:25			
18 P2 0:01:01:03			
TOTAL LAP 0:10:21:21			

- ⑦ Cut number
- ⑧ Player number
- ⑨ Lap time (Playback time of each cut)
- ⑩ Total time of the program

Specifications

Input jacks

Video	5 lines (PLAYER INPUT 1/2/3/RECODER IN/PROCESSOR IN) S-VIDEO IN: 4-pin mini DIN (5) Luminance 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance 286 mVp-p, 75 ohms, unbalanced VIDEO IN: Phono jack (5) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio	6 lines (PLAYER INPUT 1/2/3/AUX AUDIO INPUT/RECODER IN/PROCESSOR IN) Phono jack -75 dBs, impedance 47 kohms or more
Microphone	Minijack (front 1) -60 dBs, 3 kohms or more

Output jacks

Video	4 lines (RECODER OUT/MONITOR OUT/PROCESSOR OUT 1/2) S-VIDEO OUT: 4-pin mini DIN (4) Luminance 1 Vp-p, 75 ohms, unbalanced, sync negative VIDEO OUT: Phono jack (4) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio	4 lines (RECODER OUT/MONITOR OUT/PROCESSOR OUT 1/2) Phono jack, -75 dBs, impedance 470 ohms or less
LANC	Stereo mini-minijack (rear 3, front 1)
CTRL S	Minijack (1)
GPI	Minijack (1)
EDIT I/F	8-pin mini DIN (1)
IR REPEATER	Stereo mini-minijack (1)
Headphones	Stereo mini-minijack (1) 12 mW (47 ohms), appropriate impedance 8 ohms or more

General

Power requirements

European models except the United Kingdom: 220 - 230 V AC, 50/60 Hz
The United Kingdom models: 230 - 240 V AC, 50 Hz
USA/Canadian models: 120 V AC, 60 Hz

Power consumption

18 W

Operating temperature

5°C to 35°C (41°F to 95°F)

Storage temperature

-20°C to +60 °C (-4°F to +140°F)

Dimensions Main unit: Approx. 430 × 71 × 360 mm (w/h/d) (17 × 2 7/8 × 14 1/4 inches)

Control unit: Approx. 340 × 55 × 228 mm (w/h/d) (13 1/2 × 2 1/4 × 9 inches)

Keyboard: Approx. 340 × 50 × 180 mm (w/h/d) (13 1/2 × 2 × 7 1/8 inches)

Mass Main unit: Approx. 4 kg (8 lb. 13 oz.)

Control unit: Approx. 1 kg (2 lb. 3 oz.)

Keyboard: Approx. 0.7 kg (1 lb. 9 oz.)

Supplied accessories

See page 5.

Design and specifications are subject to change without notice.

Note (UK/European models: PAL)

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Precautions

On safety

- Do not open the cabinet. Refer servicing to qualified personnel only.
- Should any liquid or solid object fall into the cabinet, disconnect the power source and have the unit checked by qualified personnel before operating the unit any further.

On power sources

- The nameplate indicating operating voltage, power consumption, etc. is located on the rear panel of the main unit.
- Operate the unit on the specified voltage only.

On the AC OUTLET connector on the rear panel (for the USA/Canadian models only)

This connector supplies maximum 300 W power sources. Do not connect the equipment that consumes more than 300 W. The power supply from the connector is not turned on or off by the POWER switch of the unit.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not install the unit near heat sources such as radiator or air duct, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent such as alcohol or benzine which may damage the finish.

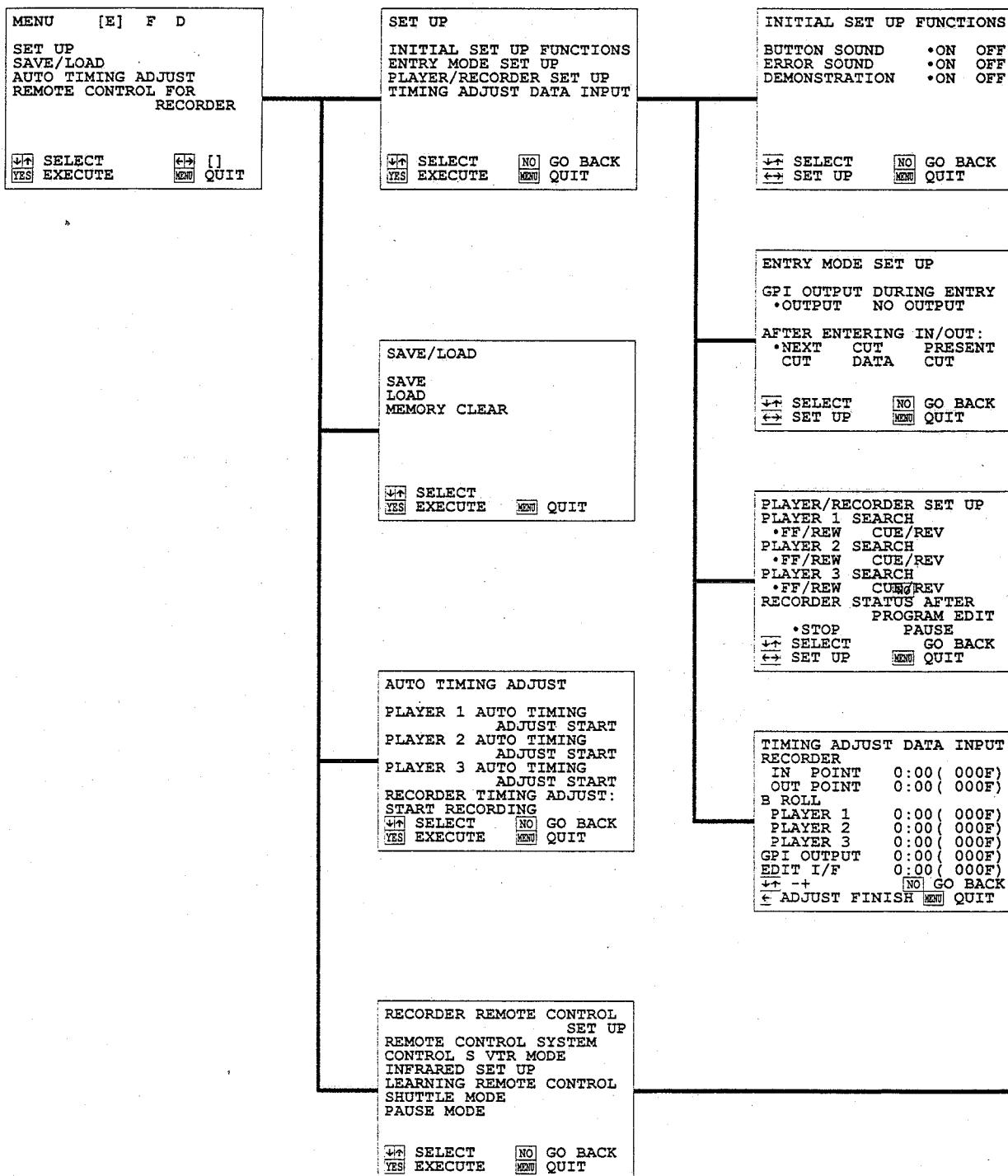
On transportation

Do not throw away the carton and packing materials. They make an ideal container in which to transport the units. When shipping the units to another location, repack it as illustrated on the carton.

Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

Menu Map



REMOTE CONTROL SYSTEM

- LANC
CONTROL S
INFRARED REMOTE CONTROL
LEARNING REMOTE CONTROL

SET UP
 NO GO BACK QUIT

CONTROL S VTR MODE

VTR 1 • VTR 2 VTR 3

SET UP
 NO GO BACK QUIT

INFRARED SET UP:
MANUFACTURER(1)

- SONY (VTR1)
- SONY (VTR2)
- SONY (VTR3)
- PANASONIC (1)
- PANASONIC (2)
- PANASONIC (OLD SYSTEM 1)
- PANASONIC (OLD SYSTEM 2)

SET UP
 NO GO BACK QUIT

LEARNING REMOTE CONTROL

STOP
PLAY
PAUSE
NEXT PAGE

OPERATION
1) PUSH YES
2) PUSH RECORDER REMOTE
CONTROLLER BUTTON
 SKIP LEARNING START
 NO GO BACK QUIT

SHUTTLE MODE
• A (FORWARD SLOW
PLAYBACK ONLY)
B (BACKWARD SLOW
PLAYBACK)
C (HI-SPEED CUE/REV)

PLEASE USE MODE A,
IF SHUTTLE DOES NOT
WORK PROPERLY.

SET UP
 NO GO BACK QUIT

PAUSE MODE

- PAUSE BUTTON
- PLAY BUTTON
- REC BUTTON

TO RELEASE FROM 'RECORD
PAUSE' TO 'RECORD'
NOT NECESSARY FOR SONY
VTR.

SET UP
 NO GO BACK QUIT

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